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BALTIMORE, JUNE 12, 1913.

GETTING MORE THAN EXPECTED

Edwards & Patterson, pean grove
and nursery, of Milledgeville, Ga., writ-
ing to the MANUFACTURERS RECORD, say:

We believe the advertisement we placed
in "The South: The Nation's Greatest
Asset" will be about all we will need this
season, as we are still getting lots of in-
quiries from all over the world. We expected
great things from that advertisement, but
the results have gone a great way beyond
our expectations.

SOME FACTS AS TO THE HIGH COST OF LIVING.

When the tariff bill was introduced
in the House of Representatives it was
found necessary by its promoters to
suggest that its benefits to consumers
were not to be immediately expected.
That must have been a shock to many
persons who had reason to infer from
campaign arguments that the tariff
was responsible for the high cost of
living, and that tariff revision would
open the gates to a land flowing with
free milk and honey. Now comes an-
other smash at that theory in the state-
ments by the National Department of
Agriculture as to the live-stock and meat
situation. These statements are to the
effect that in the past six years, with
an increase in the population, there has
been a decline in the number of beef
cattle in this country from 51,565,000
to 36,030,000, or at the rate of more
than 30 per cent., and that there has
been a decrease of more than 13 per
cent. in the number of animals killed
under Government inspection in the

first three months of this year, as com-
pared with the same period in 1912,
more than half of the meat produced
in the United States being slaughtered
under Government inspection. Refer-
ring to an increase in 1912 over 1911 in
the average price of native steers, from
\$6.50 to \$7.95; of hogs, from \$6.70 to
\$7.55; of sheep, from \$3.95 to \$4.55, and
of lambs, from \$5.90 to \$7.10, the Agri-
cultural Department says:

Unfortunately, when prices of live stock
rule high, as was the case in 1910, there is
a natural tendency for farmers to rush
everything salable to market, including im-
mature animals, and, worst of all, breeding
animals. This inevitably brings about a
future shortage, and so the country suffers
from alternate periods of comparative and
real stringency, while producers often lose
heavily through the instability of prices.
With our diminished production in the face
of the heavy demand and high prices of the
home market we no longer have a surplus
for export, and it is no wonder that our
export trade in meat animals and products
has declined heavily. Our once great trade
with England in cattle and fresh beef has
disappeared, and the only considerable items
now shipped to foreign markets are pre-
pared hog products, such as bacon, hams
and lard. England is now drawing its im-
ported beef supply mostly from Argentina,
and its supply of mutton and lamb from
Australia and New Zealand as well as Ar-
gentina. The Australian colonies are sheep
rather than cattle countries, and exports
probably more than four times as much
mutton and lamb, by weight, as beef. The
number of cattle in Argentina showed a de-
crease at the last census (1911) as compared
with the preceding one (1908).

The United States has no longer the for-
mer abundant supplies of cattle raised
cheaply on the open range. The range is
being cut up and fenced off into farms or
diverted to sheep grazing. There has also
been a great increase in the price of corn
and other feeds, which has made cattle feed-
ing a risky and expensive undertaking, espe-
cially as for a considerable time the prices
received were unsatisfactory from the feed-
er's standpoint. For these various reasons
cattle raising went into disfavor, and the
present greatly restricted supply is the
result. The time has come when we must
conserve our meat supply and take steps to
increase it, and at the present remunerative
prices for food animals it is probable that
this will be gradually accomplished. Farm-
ers generally, and especially those in the
corn belt, should take advantage of the sit-
uation to develop cattle feeding under the
present favorable conditions. The South
has great possibilities for the future as a
cattle-raising country, but the development
of this industry there must await the ex-
termination of the cattle tick, which, fortu-
nately, is being rapidly accomplished by the
joint efforts of the Government and the
States.

"For these various reasons cattle
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present greatly-restricted supply is the
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The pending tariff places upon the
free list fresh beef, veal, mutton, lamb
and pork, upon which now is levied a
duty of one and one-half cents a pound.
Will free trade in meats be an encour-
agement to farmers of the United
States to attempt to increase the meat
supply by developing cattle feeding? We
think not; nor do we believe that the
removal of the duty on meats will re-
duce the price of meats to the con-
sumers.

SWINGING AROUND THE CIRCLE OF THE SOUTH.

In a six weeks' swing around the circle of the South evidences of improve-
ment were seen on every hand; improvement in manufacturing development, in
railroad betterments, in city building activities and in agriculture.

In no line of activity is broader and more important progress being made
than in agriculture. From one end of the South to the other there is an awak-
ened spirit as to improvement of the soil, better cultivation, wider diversifica-
tion of crops and the general advancement of farm life for the tenant as well
as for the farm owner. From the Carolinas out to Oklahoma and down to
Texas the commercial organizations of the towns and cities are devoting a large
part of their work to the advancement of farm conditions. They are offering
prizes for the highest quality of farm products, as well as for the largest yield
per acre. They are encouraging the betterment of tenant homes by land owners,
a more careful selection of seed and the utilization of modern farm implements
and equipment. But the farmers themselves are equally as active in this work
as are the people of the towns and cities in their co-operative campaign. No one
familiar with the South of five or ten years ago can travel through it by train
in daytime or motor from point to point without being impressed with the strik-
ing change that is taking place in the diversification of farming and in the im-
provement of farm homes. This is especially noticeable near the manufacturing
centers of the South.

The impression left on the mind after such a journey is that in respect to
these things, especially as to the better painting of farm homes and the general
attractiveness of yards and fences and outbuildings, the upper South is rather
taking the lead, and this is more pronounced around industrial centers than in
other parts. Wherever manufacturing development has made such progress as
to create a home market for everything that the farmer can grow there has
come a marked improvement in farm conditions. The progress of manufactures,
it is easily seen, means more to the farmers than even to the manufacturers.

Many great industrial enterprises are under way; new mines are being
opened in all the coal regions of the South; two or three by-product coke plants
are to be added to those which have made such a revolutionizing change in iron
and coke production at Birmingham; railroads are spending a good many mil-
lions of dollars, and yet not spending half as much as they realize needs to be
spent, if the money could be had, upon improving their roadbed, increasing their
rolling stock and building better terminal facilities. On the other hand, many
of the towns and cities of the upper and central South are behind Southwestern
cities in extent and quality of street paving, and possibly in church and school
architecture and expenditures.

Men everywhere throughout the South are viewing with a broad vision the
limitless opportunities for development. They are planning great undertakings;
they are building fine homes, fine schools and costly churches; they are actively
at work doing and planning things commensurate with the wealth of opportu-
nities which the resources of the South justify. There is no longer to be found
anywhere in the South any pessimism as to its future, any wavering in thought
even as to the fact that it is the most inviting field for men of brains and energy
and capital in the world. Business men recognize that there may be from time
to time temporary haltings in the march of progress; they know that in some
years business is better than others. They recognize the evils of tariff agita-
tion, and in a six weeks' tour only one man with whom the writer talked actively
favored the proposed tariff bill, and they appreciate the fact that money is needed,
but cannot be had, for railroad expansion on a large scale. They are not shut-
ting their eyes to any of these things, but they are going ahead, conscious that
they are operating in a country that has no equal in the world in natural ad-
vantages, and in a self-reliance which gives them the strength to do things that
they might not have dared in other days to undertake.

One of the most interesting features connected with the present situation in
the South is the number of men from other sections of this country and from
Europe who are to be found in every part of the South spying out the land, in-
vestigating its opportunities for investment, and investing as well as investigat-
ing. One can scarcely pick up a Southern paper without noting the arrival
here and there of capitalists, or men representing capital, from other sections.
Land buyers are coming in from everywhere, and a good many tracts are being
sold for colonization purposes.

As the diversification of agriculture covers a wide range and is indicative of
more prosperity than since 1860, so there is wider diversity in industrial activi-
ties. While French capitalists are spending \$10,000,000 in building an aluminum
plant in North Carolina, while foreign and Eastern and Western capitalists are
spending many tens of millions in hydro-electric operations throughout the
South, coal miners and coke makers, no longer content with the wasteful methods
of the past, are establishing by-product plants; the oil fields that have been
piping their oil to the Gulf and to the Atlantic seaboard to be refined now find
many new refineries under construction, that the oil may be sent out as the
finished product rather than in its crude form, as in the past; the fields where
millions of feet of gas were steadily going to waste are being conserved, and a
dozen or more glass factories are being established to utilize the combination

of gas fuel and an abundant supply of glass sand as a raw material for the factory.

So all along the line and all through the South progress is everywhere the order of the day. And yet there is one feature of Southern life which needs to be changed. Indeed, there are two features. In many places there is more or less jealousy about other towns. Men in one growing city are apparently jealous about what the rival town may be doing, and instead of broad co-operation for the good of the whole State, the people in many towns and cities are injuring themselves and injuring their States by this petty spirit of criticism of other places, prompted, apparently, either by fear of their growth or by jealousy.

The other thing that needs to be corrected is that the people of the South as a whole are not well informed about what the whole section is doing. In a prosperous town of 30,000 people in Oklahoma a prominent lawyer, largely interested in development matters, referred to the fact that his town and one of the big cities of the far West were the two most conspicuous illustrations in America of city building activity. He was in dead earnest, and he ranked his town of 30,000 people alongside of a Western city of 400,000 people, and he did not realize that Atlanta, and Houston, and Birmingham, and possibly some other places are spending nearly as much money in building operations as has been spent upon the building of his city in the ten or fifteen years that it has been an active progressive place. He is a type of tens of thousands of men who ought to be better informed. His town is a vigorous, active, growing place and worthy of all enthusiastic commendations, but he knew nothing of what Chattanooga, and Memphis, and Louisville, and Houston, and Dallas, and Fort Worth, and San Antonio, and Birmingham, and Atlanta, and other places are doing. In Atlanta you will find the most progressive people in the place so absorbed in the progress of their own city that they scarcely know what Birmingham, for instance, is doing. In Birmingham you will find people who know little about the marvelous advance of Atlanta, and in neither place will you find that the foremost men of the community know much about Houston or Dallas or Fort Worth or other cities throughout the South. Norfolk, for instance, has for the last year or two been enthusiastically boasting about its magnificent high school, built at a cost of nearly \$300,000, regarding it as one of the great high school buildings of the country; and yet in the Southwest cities of half its size have high school buildings that have cost from 50 per cent. to 100 per cent. more than this school. Atlanta boasts about its new hotels and new office buildings, but scarcely knows that Birmingham is building skyscrapers and splendid hotels and apartment-houses. Birmingham boasts about its great iron industry, but does not stop to realize that Chattanooga is the first town in the South to have an iron furnace with the most modern improvements to lessen the cost of iron, and that it is developing its iron consuming interests so rapidly that it has become one of the great centers of the country for the finished product of iron, covering a wide range of industries. Baltimore views with enthusiasm the probability of the Pennsylvania Railroad spending \$10,000,000 in enlarging its terminal facilities, but it does not know that in Memphis, with less than a fourth of the population, equally as much is to be spent on the enlargement of terminal facilities and the building of a bridge across the Mississippi River in connection therewith; nor that in Dallas, with less than one-fifth of the population, almost as much is being spent in the building of a union depot and an interurban terminal station.

The newspapers and the press associations of the South are to some extent responsible for this condition. Two weeks ago it was announced that the United States Steel Corporation would complete its wire-making plant near Birmingham, which will represent an investment of over \$4,000,000 and mark one of the great epoch-making periods in the iron and steel industry of the South. But in a rather diligent reading of Southwestern papers not a line could be found carrying a story of such great importance to this whole section. In North Carolina a \$10,000,000 aluminum plant is under construction. The fact ought to be a matter of news to be read with profound interest by every intelligent man in the South, and yet few newspapers in the Southwest have carried a story about it, and we believe that no press association has ever mentioned it.

And so illustration after illustration could be given of the fact that men are not broadened to a full knowledge of the wide sweeping activities of the whole South, partly because they do not seek to keep in touch with these conditions which bear intimately upon every business activity of every part of the South, and which carry lessons to the farmer, the merchant, the manufacturer and the banker, all of whom could learn from what others are doing what could be done at home, and partly because many newspapers in the South, and the press associations, do not regard a new and vitally important advance in agriculture, a new development in manufacturing or in railroad building as worthy of as much space or editorial comment as a drunken brawl or some pistol-shooting scrape between supposed reputable citizens, who prove by the fact that they were carrying pistols that they were not reputable and were violating the laws of the State and only needed an opportunity to become murderers.

These are conditions that can be changed. It behooves the people of the South and the press of the South to study the situation and help to bring about the change.

A NEW TRUNK LINE.

Although freight transportation is the most important part of the business of nearly every railroad, the average individual considers passenger traffic as its principal function. Therefore, the announcement by the Western Maryland Railway Co. that it will on June 15 begin the operation of through express passenger trains between Baltimore and Chicago in connection with the New York Central lines strongly impresses upon the public the fact that

a new trunk line has been established between those cities, although it has really existed ever since the Connells-ville extension was opened to freight traffic.

For some time passenger trains have been operated via this new route between Baltimore and Pittsburgh, but the decision to run solid trains all the way to Chicago is a real step forward, and causes people to realize the important position which the once little local country railroad now occupies in

the world of transportation. At first there will be only one train each way daily, but others will be added as business increases. The service is to be up to date from the very beginning, with the most modern equipment and character of other accommodations.

The Western Maryland is to be congratulated upon its continued success and enterprise, which makes this extension of its facilities possible. It has overcome great obstacles, and has provided for use of the public a new, substantial and beautiful route over the mountains to the West. How strong and good it is was demonstrated when it was used by the Baltimore & Ohio trains even before the Western Maryland itself used it, this being as a result of a tunnel cave-in on the older line. The officials of the company have every reason to feel pride in its progress and the promise which is extended to it for the future.

FARMERS ABLE TO FINANCE THEMSELVES.

Mr. D. A. Tompkins of Charlotte, N. C., pointed out recently in the MANUFACTURERS RECORD that it was quite practicable for farmers to better their financial status by adapting to the agricultural situation the principle of building and loan associations. With that suggestion as a text, the New York Times says:

There is no reason why the farmers cannot save their own money and loan it to each other for farm improvement as readily and as largely as the members of the building associations save and loan for building purposes.

It is possible, of course, that business of this sort might be aided by a moderate amount of outside capital at the outset. This is the plan adopted in Ireland under the organization of which Sir Horace Plunkett is the leader, and it has literally resulted in profitable lending associations made up at the beginning of farmers almost penniless. In the Irish organization there is embodied also a plan for agricultural instruction and experimentation, and for co-operation in standardizing products and in sales and purchases. But the essential principle is that of self-help and mutual help, and this is all-important.

There is a tendency, and a pretty strong tendency, among those engaged in the movement for bettering farm life to introduce a substantial element of Government aid, intervention and regulation. It is an unsound tendency. Interference by the Government, State or national, should be kept at the lowest limit, and never should be encouraged, only in a form that will require and induce the utmost self-reliance. The farmers of the United States are not a dependent class, and it would be an evil day for the country if to any considerable extent they should come to regard themselves as dependent. As a class they are undoubtedly backward, for their average product per acre of the staple crops is not so high as it is in many countries where the soil is no more fertile. But such backwardness as they show is decreasing.

It will go on decreasing only by the development of their own resources and the active enlistment of their own intelligence. This is a fact to be borne steadily in mind when we get the report of the commission now examining the situation in Europe. Whatever Government action is undertaken should be stimulative, and that alone.

The auspices and circumstances of "the Commission now examining the situation in Europe" do not, on their face, warrant an enthusiastic belief that the results of their examination will be of any benefit to the country, or that the \$150,000-odd represented in the expenses of the enterprise will bring many valuable returns, barring the pleasure of three months' jaunt abroad by the 20 women and 80 men involved in the "Commission." As has been pointed out more than once before, the information of value to the farmers of this country

that the Commission may acquire could readily have been obtained without any hurrah and at a cost of a few hundred dollars. But the auspices of the Commission thrive upon hurrah, and so the wide interest in credits for farmers is being worked for all it is worth. Part of this publicity work hung upon obtaining quasi-endorsement by the Federal Government in an appropriation of \$25,000 and the appointment of half a dozen or more Federal Commissioners. It is hoped that the interest of the Federal Government in the matter will cease with the return of the Commission and the expenditure of the \$25,000. As the Times wisely urges, the less the Government has to do with this matter of "uplift" for the farm, for the factory, or for any other phase of American endeavor, the better it will be for the country. Too much of that sort of paternalism has been encouraged in the past 10 or 15 years. It has become quite a favorite means for advancing the fortunes of politicians in national and State life, and it is so insidious that its supposed beneficiaries are unaware that not only are they compelled to pay the ultimate bills, but they have their initiative and independence sapped every time unnecessary Government aid is laddled out to them.

LOBBYING FOR COMMON-SENSE IN THE TARIFF-INCOME TAX CUBISM.

After nearly two months—including 135 hours, extending over fourteen days of "calm debate"—of party caucussing and of extension of remarks for publication in the *Congressional Record*, it was discovered on June 4 in the Finance Committee of the United States Senate that the income tax section of the tariff bill carried a provision that would make it unconstitutional, in that it was to become effective January 1, 1913, or nearly two months before Congress had been given the right to enact such a law. That fact was discovered by the MANUFACTURERS RECORD as soon as it had opportunity to study the text of the tariff income tax bill, and in its issue of April 24 it suggested a draft of a simple, clear, direct and practicable income tax law containing a provision overcoming the defect. The point was emphasized in our issue of May 8, as follows:

What of the constitutional prohibition of an *ex post facto* law as bearing upon this income tax law made operative for a period several months anterior to the passage of the law, if not, indeed, several weeks prior to the right of Congress to enact any income tax law of the kind?

Again, on May 29, in concluding comments upon glaring defects in the bill, we said:

They do not touch upon the question of the constitutionality of the discrimination in selecting the minimum income subject to the tax, especially in the light of the explanation of that selection volunteered by framers of the measure. Nor do they touch upon the constitutionality of the exemptions from the tax, in paragraph C of Section II, of the salaries of the present President of the United States, the present judges of the United States courts, and of all officers and employees of the State or any political subdivision thereof, authority for which seems to bank upon opinions of law officers of the Government or court rulings antedating the amendment to the Constitution giving the Congress the power to levy an income tax in this way. Nor do they touch upon the constitutionality of a provision, in paragraph D of Section II of the bill, which attempts to make the law operative from January 1, 1913, a date anterior to the ratification of the income tax amendment and much longer anterior to the passage of the bill itself, a provision involving the impossibility of withholding at the source of an

income the tax on payments that have been made six months or more earlier.

We endeavored to direct the attention of every member of the Finance Committee of the Senate immediately to those comments, and in less than a week was sent an announcement from Washington to the effect:

The income tax section will be amended in committee to remedy a defect which it was discovered today would make the measure unconstitutional. When the framers of the income tax provision fixed January 1, 1913, as the date from which to compute income for taxation, they overlooked the fact that the constitutional amendment authorizing an income tax was not proclaimed as ratified until February 25, 1913.

We hope that this discovery was a result of our "lobbying" against the tariff-income tax bill as it passed the House of Representatives. We do not, however, believe that the framers of the income tax provision "overlooked" the fact of the unconstitutionality of fixing January 1, 1913, as the date from which the law not yet enacted was to become operative. There is evidence on the debates that at least one of the framers of this particular provision was unaware that both Hawaii and Alaska are constituted territories of the United States, and, arguing in analogy, we feel sure that the framers of the income tax provision were unacquainted with the meaning of a constitutional prohibition of an *ex post facto* law, or that, even if they had possessed that knowledge, rather an essential qualification of a national law-maker, they would have utterly disregarded the fact, as their attitude has been that of individuals obsessed seemingly with the ridiculous idea that in some way or other they had been divinely inspired to pass this tariff-income tax bill regardless of the obvious fact that it had been concocted from the scrap-heap of the political buncombe of the last session of the Sixty-second Congress, regardless of its effects upon the country, and regardless of the probability that it would not stand the test of the courts. Their attitude was apparently that of men who imagined that the income tax amendment to the Constitution was the sole surviving portion of the Constitution, and that, therefore, any kind of legislative cubism was permissible.

Gratified at this signal justification of our "lobbying," we venture to hope that the full-grown and experienced legislators in the Senate will continue to apply the acid test of common sense and constitutionality to the measure before them, and will not let go of it, even if it takes all summer, before they have made of it a measure in which intelligence may take some pride, and which may be workable.

A SUCCESSFUL CAMPAIGN FOR BALTIMORE.

Of the many movements in recent years for the entertainment in Baltimore of organizations having a serious purpose the MANUFACTURERS RECORD can recall none as signally successful as that of the Baltimore Ad Club, in connection with the national convention of the Associated Advertising Clubs of America, still in session as we go to press. From the standpoint of veterans in advertising and of disinterested students of divers and sundry local and general organizations, of continuous life or of temporary existence, we have been profoundly impressed by the lessons given by the young Baltimoreans in publicity work

which may be applied profitably to future undertakings of the kind.

As soon as the national advertising men had selected Baltimore for this year's convention for their association, the Baltimore Ad Club set to work to make good, both for the organization and for the city, its promises of pleasure and profit. The plan of campaign was carefully and comprehensively mapped, the responsibilities for each phase of it were distinctly placed, and all the mental and physical muscle at the command of the club was called into requisition, and for twelve months was kept at high tension under the spur of an intelligent enthusiasm which belongs to the age of from 25 to 35 years.

Results must be as gratifying to all other progressive-minded Baltimoreans of all classes as to President Shay of the Baltimore Ad Club, the chairman of its many convention committees and the membership as a whole, and they are to be congratulated upon their notable success in providing for the comfort, the convenience and the entertainment of this week's guests of the city, in giving the visitors opportunities to become acquainted with the city and its people, and to become impressed with Baltimore's attractions, and in providing a proper setting for the proceedings of the convention of the Associated Advertising Clubs of America, which promise to place the work of that organization upon a high plane of usefulness to the advertising profession.

HE WORKS

Tampa's loss in the resignation of W. B. Powell, the secretary, is Columbus' gain. Powell has been an active, unceasing, never-tiring night-and-day-for-24-hours-in-the-day-and-seven-days-in-the-week worker for Tampa. It may be expected that he will be the same kind of worker for Columbus. Columbus needs a live, hustling man who can utilize the rich resources of that region to make Columbus more widely known. It is a city of great progress and great potentialities, but it has not yet taken itself as seriously as it ought to have done. It has pursued the even tenor of its way, growing steadily, but not one-half as rapidly as the opportunities justify. Any city so richly endowed with natural advantages, with great water-powers, with magnificent cotton mills and iron works and other industries, such as Columbus has, ought to be heralding these things broadcast throughout the world. The story of Muskegee county, in which Columbus is situated; its success in building roads and public buildings through a commission form of government, which it has had for 35 years, without incurring a dollar of indebtedness or issuing any bonds, is in itself a story worthy of the widest circulation and capable of being made of interest to every intelligent man throughout this country who is studying the question of how county and city governments can be handled more efficiently and less expensively than at present. It may safely be counted that Powell will soon find a way to make these facts about Columbus and Muskegee county known to all the people of the land. May Tampa succeed in getting another man who can do even better than Powell has done!

The Florida Citrus Exchange handled in the 1912-13 season 1,738,045 boxes of citrus fruit, or nearly 250,000 more than the highest previous record, in the season of 1909-1910. The total crop of the State this season was 8,500,000.

Notes by the Way in Dixie.

Nashville promises to duplicate Richmond in its material advancement. In many respects Nashville and Richmond are alike. In the early days following the war they both had men of whom it might be said: "There were giants in those days." Richmond had many men of exceptional financial and business ability who became noted leaders in the development of the South. They were largely responsible for much of the railroad building activity of the central South in the early eighties, for the development of iron and coal in Birmingham, and for many broad enterprises which set the pace for growth throughout the South. In those days Nashville, too, had railroad builders and iron and coal developers; it had its Shooks, its Coles, its Baxters and others who were as great in the leadership which carried the South out of the poverty following the war, to industrial victory as were the men between 1861 and 1865 who led the armies of the South to victories on many a sanguinary battlefield. These men were railroad builders, iron and coal operators, and to some of them, as to Richmond men, is due much credit for the creation of Birmingham and its vast industrial activities.

Later on there came a period of lessened activity at home and in outside operations in Richmond as well as in Nashville. In the last five or ten years, however, Richmond has caught its breath again, and has been making splendid progress in leadership throughout the South in financing many of the South's important industries, and in the broad development of its own industrial and financial operations. The progress of Richmond in the last five or ten years in all of these respects has been most marked.

Nashville, if I read the signs of the times aright, is preparing to follow Richmond's example and once more become a leader in many broad activities covering the South, and once more to develop more rapidly than ever before its own industrial and financial interests. Splendidly located in a country richly endowed by nature with exceptional advantages for commercial and industrial affairs, Nashville halted for a while just as Richmond did; but now it is moving forward with every indication that it is to duplicate Richmond's progress in financial and industrial development. To the outsider the evidences of this change are probably more noticeable than to Nashville people themselves. Nashville, by the way, boasts a hotel that in construction, in all its appointments, and in its dining-room service matches the best of New York's hotels. There are few hotels in the South, or, for that matter, anywhere else in the country, whose managers could not learn some lessons, the learning of which would add to the comfort of their guests, by a study of Nashville's new and most modernly equipped and managed hotel. And yet this almost perfect hotel is guilty of one sin which it is hard to forgive. Like many other hotels, it afflicts its guests at the dinner hour with a ceaseless din and clatter which it calls music, but which by no stretch of imagination is entitled to such a name, and even if it were music, a dining-room is no place for it. Hotel guests ought to be saved from such hideous drum-beating, horn-tooting noises, under the guise of music, that make all conversation impossible. And then this Nashville hotel permits its so-called musicians to drum away at "The Devil's Ball" and such monstrosities on Sunday even-

ings. May the managers of this and other hotels repent before it is too late.

* * *

Some years ago Memphis was devastated by yellow fever to such an extent that many questioned whether the city would ever revive. Galveston's fearful toll of life paid to the hurricane some 12 or 13 years ago was scarcely more disastrous to that city than the epidemic which threatened the life of Memphis; but Memphis gave an illustration, which has not been surpassed since, even by Galveston or Dayton or other places, of the spirit which dares to conquer regardless of obstacles. Though some of its people may have lost faith in its future, though some sought homes elsewhere, and though outsiders thought it was doomed, the men who had made Memphis did not lose heart. Long before Panama had shown to the world how yellow fever and kindred evils could be destroyed by proper sanitation, Memphis had given a demonstration which, considering the times and the fact that it was done by one city, unaided by outside help, while Panama had back of its work the National Government, with its limitless wealth, was as great as the work at Panama. It is well that the men who redeemed Panama should receive the world's praise, but Memphis should receive the higher credit for having done a piece of work which, considering the adverse conditions of the day, equals that at Panama, even if it does not exceed it.

When the destructive fever that held the town in its grasp for months had passed away, the men of Memphis determined to rebuild their city, to establish the most modern sanitation and construct a sewerage system, with a feeling that, however great the cost, the results were worth the price. From the badly paved, badly sewered town, backward in many respects, and with but little prospect of any great increase in population or wealth, Memphis, as the result of the splendid work done by its people years ago, has become one of the most progressive and prosperous cities of the whole South. It is as notably healthy now as it had, before the days of better sanitation, been notably unhealthy. Bad paving gave way to paving which matches the best in the country. Small business houses have been succeeded by great structures measuring up to the necessities of the day. Poor streets have been turned into great boulevards lined with homes that bespeak not only wealth, but architectural taste.

No one can visit Memphis without being impressed with its business structures, its exceptionally costly and attractive homes, its public buildings and the activity of its railroads in enlarging their terminal facilities and providing new and larger depots. It was but a year or two ago when some of the railroads in Memphis built a beautiful depot at a cost of about \$1,500,000. Other roads are now uniting and building another that will cost as much, and in connection therewith contracts have been let for building across the Mississippi River a bridge which will cost about \$3,500,000.

The story of Memphis' redemption from the insanitary condition which helped to produce the epidemic of fever to the splendid healthfulness of the present matches in scientific importance, if not in magnitude, the work at Panama, and the prosperity of Memphis is but indicative of the limitless opportunities to be found throughout the South whenever united to

the energy and the broadminded business ability of the men who made the Memphis of today a possibility.

The story is told that when one of the Goulds visited Little Rock he expressed unbounded faith in its future because "it had neither palaces nor hovels, but comfortable homes for all its people." Another thing might be said of Little Rock equally as interesting. Its main business street, running from the river 24 blocks, is almost solidly built up, there being only one or two vacant lots. On these 24 blocks, or, when both sides of the street are counted, 48 blocks, only three houses are encumbered by mortgages, and one of these is an office building with an issue of bonds against it. This remarkable showing of only three mortgaged houses in 48 blocks of a thriving city is typical of the solidity of the business interests of this city. When this statement has been made in financial reports men from the East have been sent out to make special investigations to see if it could be true. Though the growth of the city has been less spectacular than that at some other places, it has been solid and steady. As it is without the palaces of the over-rich, so it is apparently without the hovels of underpaid poor.

A few years ago some of its business men decided to build a hotel that might become an attractive factor in city progress. They built one worthy of their plans, and in connection therewith an auditorium ample in size for any ordinary convention. The building of the hotel gave a new impetus to the town, and Little Rock has become a great convention city. It is said that over 120 conventions and business gatherings have already been scheduled for the present calendar year.

In front of a business office on one of the leading streets of the city is a big block of bauxite, reminding the passerby that not far from Little Rock is the biggest bauxite development in America, supplying a large proportion of the bauxite needed for the aluminum industry of the country. The story is told that the owner of the property some years ago was compelled to take it over for a small debt, and that now the bauxite is being mined under a royalty of \$1 a ton, with a minimum payment of \$5000 a year whether any bauxite is taken out or not.

Arkansas is rich in mineral resources. It has some which, like bauxite, are partly developed; it has many that are undeveloped. It has a diamond field, and thereby hangs a story.

During the last two or three years a number of articles have appeared in the press of the country about a reported discovery of diamonds in Arkansas. Some have thought that the report was probably a fake; others that it was a stock-selling scheme, for few have really expected that a genuine diamond field would be discovered and developed anywhere in this country. But Arkansas has the diamonds which, as to quality, rank, according to the testimony of experts, with the best in the world. The material in which diamonds are found in South Africa is likewise found in the same geological formations in Arkansas, and found in quantity. Geo. F. Kunz, the gem expert of America, and various other experts, some from the South African diamond region, have investigated this Arkansas diamond section. Many stones have been found on the surface; a number of them have been cut by Tiffany & Co., and certainly to the non-expert they match in beauty, in liquid light, and in

perfect form the finest stones from any part of the world when tested side by side. Charles F. Stiff, the president of the Board of Trade of Little Rock, himself a diamond merchant and a jeweler, who is now building what he says will be the best-equipped jewelry store in the world—not the largest, of course, but in respect to beauty of fixtures and protection against burglars and fire without a superior—is the president of the company owning this diamond property. He and his associates have from time to time put a considerable amount of money into the purchasing and the testing of the property and in having some of the stones cut and examined by various diamond experts. The large development which it is hoped to make of this property has not yet been brought about, though the men interested are looking forward to the time when capital will be convinced of the genuineness of the discovery and be ready for investment and development work commensurate with the indications as to quantity and quality.

Plans are being discussed for the consolidation into one city of Little Rock and its suburb across the river, Argenta, where 6000 to 7000 or more men are employed in railroad shops and kindred work. There has been some active discussion looking to the consolidation likewise of railway and electric-light companies, the development of hydro-electric power, the building of interurban lines and the construction of a costly boulevard between Little Rock and Hot Springs. The air is charged with life and electricity. Men of Little Rock are planning great things, and men outside of Little Rock interested in its development are planning other great things for the advancement of this section.

The election a few weeks ago of Tom Randolph to the presidency of the National Bank of Commerce, the foremost bank of St. Louis, is another illustration of how every day brings forth new evidences of how men achieve success by deserving it. Some 15 or 16 years ago, or perhaps a little more, the writer became acquainted with Mr. Randolph when he was living in Texas. At that time he was interested in banking, as well as in the establishment of industrial enterprises, especially oil mills and similar industries in Texas and Oklahoma. Nine years ago, though retaining his interests in Texas enterprises, he went to St. Louis. For five years he was president of the Commonwealth Trust Co. of that city. About a month ago he was elected president of the Bank of Commerce, which has a capital of \$10,000,000, surplus and undivided profits of \$2,410,000 and deposits of \$53,300,000. Mr. Randolph went into a banking house at Sherman, Tex., as a messenger boy in 1872, and shortly thereafter was elected cashier. Not being of age, his minority had to be legally removed in order to legalize the transactions of the bank. Later he became president of the bank, which for years was the largest in Texas, and is still president of it.

While the South and West have sent into Texas many men who have become important factors in its development, Texas has sent to other sections men who have become leaders in financial, railroad and business operations. Randolph, president of the foremost bank in St. Louis, is a power in the financial forces of the Southwest. Stillman, chairman of the board of directors of the City National Bank of New York, the largest bank in the country, was likewise a Texas boy, as was Yoakum, the creator of the Frisco

system. While Texas has been receiving men of energy from other sections, it has given to the financial and railroad and general business interests of the country an unusually large number of men of unusual ability.

The strength of St. Louis as a financial center is indicated by the fact that the capital, surplus and undivided profits of the financial institutions of the city aggregate over \$79,000,000 and the deposits are upwards of \$320,000,000. With the rapid growth of St. Louis, and on every side are seen evidences of this; with the continued extension of its influence in business affairs throughout the Southwest and eventually into the Central South, into which St. Louis will inevitably go. Mr. Randolph, with his big bank and the other banks of that city, will have a field worthy of their activities.

The man who laid out Fort Smith showed his limitless faith in its future, based on strategic location, by making its main business street almost as wide as Pennsylvania avenue, Washington. He was an old trader who in shipping stuff up and down the river to and from New Orleans had become impressed with Canal street in that city, known throughout much of the world as one of the widest and most interesting streets in all America, if not in all the world. It was with the idea of duplicating Canal street that the plan was made for the main business street of Fort Smith. This is one of the boasts of Fort Smith, but then Fort Smith can boast of so many things that it does not have to confine its boastings to one particular object. It boasts, and justly, too, of the amazing agricultural and mineral resources tributary to it; of its advantageous location, with Arkansas on one side and Oklahoma on the other; of its railroad facilities, having nine distinct railroads and two branch lines, making it one of the great railroad centers of the Southwest. It boasts of its splendid paving. It boasts of the wonderful apples and peaches that are grown in the surrounding country; of its progress in industrial activities, and especially in the making and selling of furniture; of the strength of its financial institutions; of the beauty and costliness of many of its homes. And now Fort Smith is thinking not so much of the things that are behind, of the things that have been achieved, but is looking forward to the things that are to be done. It is preparing to run a race and to win a prize of still greater wealth and progress, due to its splendid location, to the growth of the surrounding country, and to the energy and activity of its people.

R. H. E.

TIMBER AND WATER-POWER.

Important Purchase in the Asheville Region.

[Special Cor. Manufacturers Record.]

Asheville, N. C., June 4.

The Wolf Mountain Lumber Co., of which S. F. Chapman of Asheville is president and Henry L. Doherty & Co. of New York are the principal stockholders, has purchased from George H. Smathers for \$144,000 timber land and water-power along 20 miles of stream on the upper waters of the Tuckaseegee River. The property lies mainly in Jackson county, about five miles across the Tennessee ridge from Lake Toxaway and 15 miles from Dillsboro, on the Murphy branch of the Southern Railway.

The streams are rapid, and are estimated by the Amburns Hydraulic Construction Co. of Boston to have 13,000 horse-power, practically continuous because of the abundant and uniform rain-

fall of that section. There is heavy timber on the tract, much of it virgin, but it is not the purpose of the purchasers to cut this for a number of years. The present plan looks to the development of the hydro-electric power, but this will not be in the immediate future, Mr. Chapman says.

Charleston and the Canal.

In anticipation of the completion of the Panama Canal the *News and Courier* of Charleston, S. C., issued on May 23 a special Panama Canal edition in which are set forth the opportunities for Charleston in the opening of the waterway, and incidentally a mass of information bearing upon the notable revival in business activities during the past decade at Charleston as indicating the approach of the city to the point of real preparation for expansion and development. Among the notable articles in the 92 pages of the nine sections of the issue are "Why Charleston Is Known as the 'Plumb Line' Port," by A. V. Snell, managing secretary of the Chamber of Commerce; "Charleston Harbor and Its Developments," by Major George P. Howell of the United States Engineers; "Port of Charleston as a Distributing Center," by R. B. Pegram of the Southern Railway; "What the Opening of the Canal Should Mean to Charleston," by Mayor John T. Grace; "Banks of Charleston," by President E. H. Pringle of the Bank of Charleston; "Charleston's Progress," by President Wilson G. Harvey of the Chamber of Commerce; "The Panama Canal and Latin-American Trade," by President W. W. Finley of the Southern Railway; "The Health of Charleston," by Dr. J. Merceir Green, city health officer; "Charleston Real Estate Attractive to Investors," by Daniel L. Sinkler, city assessor; "Charleston's Chance for South American Trade," by James Henry Rice, Jr.; "Charleston Navy-yard," by Julian Francis Nohrden; "Cotton Mills to Benefit by Opening of the Canal," by August Kohn; "Cotton Business Here Shows Rapid Growth," by President James M. Seignious of the Cotton Exchange; "This State Leads South in Developed Water-Power," by August Kohn; "Millions Invested in Truck Farming," by E. G. Spencer; "Charleston's Fertilizer and Phosphate Industry," by J. R. Hanahan; "The Coast Country and Its Development," by Jas. Henry Rice, Jr.; "Good Roads and Drainage," by Reid Whitford; "Climate of Charleston Mild and Equable," by J. H. Scott of the United States Weather Service; "Educational Advances Made in South Carolina," by W. F. Caldwell; "Ocean-Going Business," "The Clinchfield Railroad and the Port of Charleston," "Railroad Service Better Than Ever Before," "Growth of City Shown in Building Work Survey," "Coast Defense System," "Port's Wholesale Trade," etc.

To Make Electrical Porcelain.

The General Porcelain Co., East Liverpool and other cities, will build a large plant for manufacturing electrical porcelain at Parkersburg, W. Va., and it is reported this establishment will be a removal of seven factories the corporation is now operating in other cities. These plants are to be built in units, so as not to interfere with manufacturing. At Parkersburg the main building will be 500 feet long by 300 feet wide, of brick construction, the cost of the building and machinery to be about \$400,000. When completed the plant will use daily about 1,000,000 feet of natural gas, and will employ 400 men. The establishment of the big enterprise was secured through the efforts of the Parkersburg Board of Commerce.

Governor Cruce on Oklahoma and Its Potentialities.

[Editorial Correspondence Manufacturers Record.]

Oklahoma City, Okla., June 1.

In discussing the general outlook for Oklahoma, based on its rich resources, Governor Lee Cruce said:

"In my opinion, there is no other State in the Union as richly endowed with natural resources as is Oklahoma. The people of the State are just beginning to realize the immense supply of mineral deposits that underlie our soil, and capital from other States seeking profitable investment is becoming acquainted at last with our natural resources.

"A number of years ago Oklahoma was regarded merely as a grazing region, and later on, when the rush of immigration into the State attracted the attention of the country, public interest was centered upon the utilization of its farm lands and in building cities.

"The mineral resources of the State at that time were practically undiscovered, and even today the country at large has but slight conception of the extent and variety of the mineral wealth of the State. In a general way it has become known that this State is one of the world's greatest oil-producing regions, and that our gas fields are almost without limit; but the value of the oil industry is hardly recognized or its importance understood. Last year the oil production of the State was 52,000,000 barrels. For several years the price has ranged from 30 to 48 cents per barrel. At these figures the profit was comparatively small. Oil is now selling in Oklahoma at 88 cents per barrel, and in a good many cases the highest grades of oil bring a premium, in some instances amounting to 10 cents per barrel. This advance in price has resulted in greatly stimulating the industry, and it is quite probable that the production this year will exceed 60,000,000 barrels, and that the value of this year's output will not be far from \$60,000,000. Even these figures will be enlarged by the added value which is given by refining a portion of the oil in this State. Heretofore most of our oil has been piped out as crude oil, to be refined elsewhere, but these conditions are rapidly changing, and henceforth a large and increasing amount will be refined in the State.

"Again, Oklahoma is the greatest natural gas region known. The supply apparently is great enough to last many years to come. While much of the gas is wasted, the State and the National Government are bringing about a better handling of the situation and more conservation in protecting our gas supply. Acts passed at the recent session of the Oklahoma Legislature will tend to greater conservation of this resource.

"In the gas-producing region manufacturers are getting this fuel at three cents per thousand feet, and in some cases even lower figures are reported. These companies have fuel at a cost so low as to amount almost to free fuel.

"Being a comparatively new Commonwealth, our industrial development has been limited, but the cheapness and abundance of our fuel supply, added to our other mineral resources, is bringing about a widespread interest in manufacturing industries. All over the State there is an active rivalry in securing new manufacturing enterprises, and many important plants for a variety of industries are under construction.

"Our vast stores of oil and gas are supplemented by more than 12,000 square

miles of coal of good grade, which places this State among the leading coal areas of the country. In fact, our coal area exceeds by several thousand square miles the coal area of Great Britain, though the amount of coal in the State is probably less than that of Great Britain. Manufacturers are thus protected in the matter of fuel, and in the event of the gas supply becoming exhausted there will be a sufficient supply of coal to meet their needs.

"We have almost limitless stores of high-grade glass-making sand, cement rock, shale, fire-brick clay, granite and marble and other materials on which to base a great manufacturing life. We have large deposits of asphalt of the highest grade, and this one resource alone, when properly developed, will add millions of dollars to the wealth of Oklahoma.

"Few of the States of the Union, in my opinion, possess the agricultural possibilities of Oklahoma. We are raising 1,000,000 bales of cotton a year and about 150,000,000 bushels of grain, and are transforming these great stretches of prairie, that were used formerly for grazing purposes, into productive farms. In addition to this, we are still grazing several million head of cattle, which net the investor a handsome profit.

"During the last year or two railroad building has been inactive, due in part to a general halting of railroad construction throughout the country, and in part to some of our laws, which may have temporarily interfered with railroad building in the State. At the present time there is a kindlier spirit existing between the railroads and the people of the whole State. It is quite probable that at an election to be held in August one of our restrictive railroad laws will be repealed, and I am assured that if this is done we shall have a considerable amount of railroad building by existing lines. The outlook is decidedly encouraging in respect to broader railroad activities throughout the State than for the last few years. Even now two systems are making very considerable extensions, one of them being financed by French capitalists, whose experts reported that their principals have very great faith in the future of this State. It is reported that this group of capitalists has invested about \$18,000,000 in railroad and other operations in this State. Other capitalists upon the Continent and in Great Britain have been putting money freely into oil and gas operations throughout the State.

"Our development as a State has been on sound, safe lines. While we have made some mistakes in legislation and some mistakes in speculation, we have probably fewer mistakes in both than any other rapidly developing section has to its credit or discredit. Indeed, Oklahoma has been very much misrepresented throughout the country in its legislative work. We have probably made fewer mistakes than most other States in legislation, but it so happened that our mistakes were made the spectacular features of newspaper discussions at the time when Oklahoma was so new that everything it did commanded the widest attention. We were criticised throughout the land for every act of legislation on financial or railroad matters which gave the foundation for newspaper discussion, but we did not receive the credit due the State for much wise legislation that was enacted during that period of evolution

from an unknown or undeveloped territory into a busy, bustling, rapidly developing State. We have passed through a pioneering period and have now settled down to regular routine in the betterment of agricultural conditions, in the wise utilization of our oil and gas, in making a beginning in the development of our other mineral resources and in the sane and safe discussion of all laws bearing on all the interests of the State.

"In times past the railroads, by charging higher rates to points in this State and to nearby States, created for them-

selves a spirit of hostility which found expression in much of the legislation that has been regarded as inimicable, but now, with a better understanding between the railroads and the people, and with the splendid work which the railroads are doing in attracting men and money and industries into the State, the people of the whole State are disposed to co-operate to the utmost extent with the railroads and their good work, and to give them every protection essential to their welfare and to the welfare of the State."

R. H. E.

Scranton's Interest in the South.

LARGE INVESTMENTS IN MINERAL, MANUFACTURING AND AGRICULTURAL PROJECTS.

[Editorial Correspondence Manufacturers Record.]

Scranton, Pa., June 6.

The city of Scranton probably has more men and more money interested in developments throughout the South than any other city of like size in the country. It is doubtful, indeed, if any other Northern city outside the largest four or five has such large and such diversified interests in that section. The interests run from coal to grapefruit, from lumber to figs, from railroads to pecans; the investments from a few thousands to a number of millions; the locations from West Virginia to Florida and Texas.

The most important single operation in a Southern State financed and controlled in Scranton is probably that of the Cherry River Boom & Lumber Co. This company, capitalized at \$3,000,000, has a large timber area in the West Virginia counties of Nicholas and Webster, and has immense mills at Richwood, Holcomb and Camden-on-Gauley in the former county. The mill at Richwood is one of the largest in the country, its daily cut being 300,000 feet. The other two mills are smaller, their combined cut being about 150,000 feet. These mills are running steadily, turning out a total of 450,000 feet of lumber daily, or something like 135,000 feet a year. The lumber consists of spruce, hemlock, poplar, the oaks, ash, chestnut, hickory, maple, beech and an occasional stick of cherry. In spite of the tremendous annual cut, it is calculated that the company has sufficient timber to keep its saws busy for 20 years yet. It has been operating at Richwood since 1900, and at the other places for some time less. At Richwood a town of some 3500 people has grown up because of the activities of this and other companies that followed in its wake. James W. Oakford is president of the Cherry River Boom & Lumber Co.

Subsidiary to the Cherry River Boom & Lumber Co. is the Cherry River Paper Co., a Scranton concern with \$1,100,000 capital. This company has at Richwood a sulphite paper mill which turns out from 60 to 75 tons of paper daily. Its pulpwood is obtained from the lumber company, enabling that concern to utilize material that would otherwise be left in the woods to rot. C. S. Weston is president of the paper company.

Other concerns at Richwood which procure their stock from the Cherry River Boom & Lumber Co., but in which that concern is not otherwise interested, are a tannery, a butter-dish factory, a hub mill and a clothespin plant.

The same general group of Scranton people who are interested in the Cherry River Boom & Lumber Co. are also inter-

ested in the Hebard Cypress Co., which has a big sawmill at Waycross, Ga. This mill has two band saws, with a capacity of 150,000 feet a day. Its land lies in Okefenokee Swamp, some miles from Waycross, and contains sufficient timber for many years' cutting. It is one of the biggest cypress-cutting concerns in the country.

The Paint Creek Collieries Co., owning 10 producing coal mines on Paint Creek, in West Virginia, is largely made up of Scranton people, and its president is W. L. Connell, a former Mayor of this city and also a former member of Congress from this district. The mines of this company lie in the zone through which the recent serious strike extended, and for that reason have suffered a season of inactivity. They will be greatly improved now that the strike has been settled, and are expected to be made fully equal to the best in the country in point of equipment.

The Blue Creek Coal & Land Co. is another West Virginia concern in which Scranton men and money are interested. The company owns 45,000 acres of land not far from Charleston, upon which there are now six operations, two of which the company itself runs and four of which are run under lease by the Standard-Kanawha Company, composed of Scranton people. This land is in the newly-discovered oil belt, and a number of good wells have been drilled on it.

The group that controls the Blue Creek Coal & Land Co. also controls the Kanawha & West Virginia Railroad Co., which has built a line of road from Charleston to Belya, some 40 miles. This road runs entirely through the land of the Blue Creek Company and carries all the coal from its mines. E. S. Jones is president, and maintains his office here.

Mr. Jones is also vice-president of the Meadow River Coal & Land Co., which owns 32,000 acres of land on Meadow River, in Nicholas, Fayette and Greenbrier counties, West Virginia. This is a very fine tract of coal and timber land. The coal has not yet been developed, but John and Thomas Raine have built a railroad into it from the mouth of Meadow Creek, on the Chesapeake & Ohio, and are working the timber, of which there is a very large quantity.

Scranton men are large owners of stock also in the New River Coal Co., the Piney Coal & Coke Co. and the Piney Mining Co., all of them West Virginia propositions.

The Dupont Railway & Land Co., owner of 32,000 acres of land in Volusia and St. Johns counties, Florida, is made up of Scranton people. This is an im-

portant development, embracing, as it does, large land acreage, farming operations, sawmill plant, turpentine camps and 18 miles of railroad. When the land was purchased it was with the intention to take off the timber and subdivide the land for sale in farm lots. When some experimental farming had been done, however, the men at the head of the company decided that they could not put their money into anything better than farming, and the plans were changed entirely. Of the 32,000 acres in the tract, 17,000 will be cleared and put in cultivation by the company itself, 10,000 will be offered for sale in small units and 5000 will be held as woodlands. This year the company has 400 acres in cultivation, and 800 acres have been cleared ready for the plow. By the end of the year the newly-cleared land will reach 1000 acres, and it will be added to the cultivated land next year. It is the intention to clear up and put in cultivation 1000 acres additional each year until the entire 17,000 acres have been planted. Potatoes have been found to do exceedingly well on this land, and the intention is to plant potatoes and sugar cane as the main crops. A syrup plant will be installed, and the cane so raised, together with what can be bought, will be manufactured into syrup. The railroad, a narrow gauge, now runs through the land to a point 18 miles west of Dupont, on the Florida East Coast Railway, and to within three miles of a junction with the Atlantic Coast Line. It is the intention to widen it to standard gauge and extend it to such junction. The Dupont Railway & Land Co. is controlled by the Tippecanoe Securities Co., a Scranton concern, of which H. E. Black is president and the stockholders of which are practically all Scranton men.

The Red River Land & Development Co., a concern controlled by men closely identified with the Tippecanoe Securities Co., is engaged in development work that is of much importance both by reason of its magnitude and because of its being a pioneer in the field of corporation farming in that particular portion of the South which it has chosen for the scene of its activities. This company has purchased some 10,000 acres of Red River Valley lands, of which it is the intention to put 6000 acres in cultivation. Some hundreds of acres are already planted to various crops, and the work of clearing and planting the remainder is being carried on as rapidly as possible. A band mill is now at work cutting the timber from the forest land into lumber, and the cultivatable area is being enlarged with great expedition. In cultivating the land the most modern machinery and appliances are used, including traction-hauled gang plows that cut 20 acres a day. It is the intention to raise cotton, corn, hay, oats and the various staple crops found to do well in that section. Cattle and hogs will be produced also, and possibly horses and mules. The managers believe that farming on a large scale can, by means of the many economies possible to be introduced, be made to pay returns equal to those that can be secured from any other legitimate commercial or productive undertaking. The experiment is creating a great deal of interest in the Red River country, and its success will no doubt lead to the organization of other companies along the same general lines. The company's lands are on the river at Westdale, 20 miles below Shreveport. Don P. Shockney is general manager. He lives at Westdale and gives his entire time to the business of the company. I had the pleasure of a talk with him here the other day, as he happened to be in Scranton on

business, and found him one of the most enthusiastic boomers of the South that I have ever met. He went from Indiana a number of years ago, and when he talks of the South he speaks whereof he knows.

Mason's Cove Orchard Co., owning 10,000 acres of land on Fort Lewis Mountain, near Roanoke, Va., is composed of Messrs. J. R. Hungerford, H. E. Black, V. W. B. Hedgepeth and J. F. Meyers of Scranton and C. E. Lewis of Pittsburgh. This land is to be sold in 10, 20, 25 and 50-acre units for apple orchards.

F. L. Peck and others form the Mississippi Central Railway Co., of which Mr. Peck is president, and which has a railroad running from Natchez to Hattiesburg, Miss., a distance of 150 miles. The same group of men compose the J. J. Newman Lumber Co. and the Homochitto Lumber Co. These companies have large sawmills in Mississippi, on which they are cutting in the neighborhood of 15,000,000 feet of lumber monthly. The timber in which they are working is yellow pine for the most part. They own large areas of land and have sufficient standing timber to run their mills for a number of years.

J. J. Jermyn, a native and resident of this city, is the president and practically the sole owner of the Gulf, Texas & Western Railroad, with a line from Salesville, Tex., to a point some distance beyond Seymour, more than 100 miles. It is the intention of Mr. Jermyn to extend the road southeast to Dallas and northwest into the rapidly-developing territory of the Texas Panhandle. In addition to his railroad, Mr. Jermyn is the owner of a large amount of Texas property, principally real estate. He spends much time in that State, and is enthusiastic over the outlook for its rapid growth and development.

The Mississippi Pecan & Farm Lands Co. is a Scranton organization, of which George W. Watkins is president and J. F. Wardle is secretary and manager, and in which a considerable number of Scranton people are stockholders. The company has 12,600 acres of land at Hiwance, Miss., which it will divide up for sale in small units. It has already disposed of 3000 acres in 100-acre tracts. The company will feature the planting and cultivation of paper-shell pecans. N. G. Lenington, who is interested in this company, has been instrumental in organizing companies that have disposed of something like 80,000 acres of land in Mississippi and Alabama. Among these companies are the Grand Bay Land Co., the New South Land Co., the Grand Bay Orchards Co., the Southern Land Sales Co., the Toinette Land Co. and the Irvington Land Co. Some of these companies divided their lands into 5 and 10-acre units, planted them in fruit of various kinds, and cared for them until the orchards came into bearing, when they were turned over to purchasers. In this way a large number of persons have been prosperously settled in the South. The lands of all these companies lie within 100 miles of Mobile.

There are doubtless many other Southern enterprises in which Scranton people are interested to a greater or less extent, the names of whom I have not been able to secure. These are the most prominent, and the money invested in them reaches a considerable distance into the millions. These men who have thus invested their money are believers in the South, and you will nowhere find more enthusiastic believers in the rapid development and ultimate prodigious wealth of that favored section.

GEO. BYRNE.

MAIN QUESTION IN TARIFF.

Pending Measure Hardly Fit to Be Discussed in Detail.

Editor Manufacturers Record:

I am deeply interested in the final solution of the tariff issue. Until after a careful study of your many editorials on the great hardships a tariff for revenue only would work on our manufacturing corporations, I was not aware we had so many infant industries in this country that required Government assistance to continue in business. If we have as many of these industries as you lead your subscribers to believe, is it not high time, after nearly 20 years of protective tariffs, that the country should know just what these industries are? If the entire country is to be taxed for their sole benefit, is it not possible that there are many of them we can better dispense with? Is it not a fact that a large proportion of the foreign labor that has been brought into this country during the last 20 years, over 20,000,000 in number, if I am correct, are now being largely supported at public expense through out protective tariffs? Do our native-born citizens desire any further increase in foreign laborers to be supported in this manner? If many of the articles now being made in this country by imported labor can be produced abroad and imported into this country at less cost than we can make them under our system, would it not be better to permit these goods to be manufactured abroad by these same laborers and then import the goods?

Germany is not accused by imported labor, and their protective tariff is solely for the benefit of their native labor. In our protected industries in this country a large per cent. of these laborers, and in many instances over one-half, are of foreign birth.

If there are any infant industries in this country that are of sufficient public importance to deserve Government aid, then let a commission be appointed to determine the facts and let the assistance, if any, be granted directly by the Government out of the national revenues, even if necessary to increase the income tax for that purpose.

One of the greatest curses upon our country today is the great trusts and combinations of capital made possible by our protective tariffs. If present conditions cannot be remedied by law, as now urged by President Wilson, by reason of the immense amount of money now being contributed by these great trusts to influence our legislators, who can foresee the end? Must the final resort be revolution, for the time when trusts can dominate this country, regardless of the rights of the great majority, has reached its limit.

JOHN W. HARRISON.
St. Louis, Mo.

[If, as we take it, our correspondent refers to pending tariff legislation, his comments are hardly applicable to the MANUFACTURERS RECORD. About the only industries mentioned by us in this connection are textiles, lumber and sugar-growing in the South, which we have not claimed are infant industries, and which are manned almost exclusively by native labor.

Therefore, his question as to the support by the protective tariff of foreign laborers brought into this country is worth mentioning simply to suggest that he is mistaken as to the number, inasmuch as the total number of immigrants admitted to this country in the past 20 years is nearer 12,000,000 than 20,000,000, and only a portion of that number can be classed as laborers. A very large

percentage, too, is employed in construction work on railroads, sewerage systems, etc. We have absolutely no information of "the immense amount of money now being contributed by these great trusts to influence our legislators," but if Mr. Harrison has such information it will undoubtedly be gratefully received by the wearied Senate committee which has been investigating the "lobby" against the tariff bill.

If our correspondent will go back to the files of his copies of the MANUFACTURERS RECORD he will realize that, with the exception of the section dealing with the proposed income tax, few features of the tariff bill have been discussed by us. The income tax feature has received the greater attention because it marks a radical departure in national fiscal policy, because it is rank with injustices, incongruities and other imperfections, and because it is strikingly typical of the whole measure of which it is a part.

In references to the pending legislation, our attention has been given largely to the scheme of the general proposition and to the methods of promoting it, rather than to details of its possible effects.

The attitude assumed by its promoters in the House of Representatives, their virtual denial of opportunity for real discussion of the radical measure upon its merits, and the atmosphere of infallible self-satisfaction of incompetence with which they surround themselves made hopeless the task of intelligence seeking to instruct them as to facts, and to discuss with them principles upon a basis appealing to reasonable minds.

That the Senate has now been called upon to give heed to protests and arguments by large numbers of persons is a perfectly natural result of the placing of bars of truculence and ignorance for protection of the bill in the House.

If the proposition was a tariff for revenue only, which its framers have confessed it is not, or if it was a tariff for most drastic protection, the unworkmanlike, amateurish handling of many of its leading provisions has created a measure full of perplexities and dangers for all interests in the whole country. As it stands today, this piece of legislation by guesswork and of blind staggerings toward an impossible economic millennium is a greater menace to the welfare of the United States than either absolute free trade or prohibitive protection could be.—
Ed. MANUFACTURERS RECORD.]

Howard Orchards Corporation.

The Howard Orchards Corporation, Chattanooga, is proceeding with its plans for Georgia apple orchards. It controls about 1400 acres at Wiley, in Rabun county, in the heart of the Blue Ridge Mountains, where it is planting apple orchards in units of 50 trees on about one acre of land. Active work is now in progress on cleaning, clearing and preparing the ground for planting. It is anticipated that developments for residential purposes on the part of orchard owners will follow because of the admirable location of the company's land, within a mile of the big lake (eight miles long and two miles wide), now being formed because of the Georgia & Power Co.'s hydro-electric construction. The Howard Orchards Corporation has the following officers: President, Henry R. Howard of Chattanooga, one of the vice-presidents of the American Apple Congress and president of the Tennessee State Horticultural Society; vice-president, Eugene R. Howard of Nashville; secretary, Walter M. Cline of Chattanooga.

Porto Rico: Its Industries and Trade.

By S. Z. AMMEN.

By reason of its scenic beauty, delightful climate and fertility, Porto Rico* is called by travelers "The Pearl of the Antilles." A month spent in the island during the spring of the present year convinces the writer that this laudatory designation is well deserved, and that, in view of the wonderful prospects of Porto Rican industry and commerce, an even higher term of praise would not be inappropriate. Our recently-acquired outpost in the West Indies cannot but interest the thoughtful American. As our only civilized and populous colony, it presents in its administration practical problems not encountered in Hawaii nor in the Philippines, and the question of the degree of our success in the solution of these problems has a wide appeal.

Porto Rican politics is sure in a short time to demand attention, because its every movement is animated by a growing discontent. The island is more prosperous than it ever was before. It is better and more economically governed than it ever was before, but we have endowed it prematurely with universal suffrage, without complete control of its affairs, and it wants more and is dissatisfied.

In its industrial and commercial aspects the island is of special interest to the readers of the MANUFACTURERS RECORD, since in some lines of production it competes with the South, while in other lines it is a valuable customer. In the year ended June 30, 1912, for example, Porto Rico shipped to the United States sugar and molasses to the value of \$32,245,044; tobacco, \$7,430,195; cotton, \$59,342; citrus fruits, pineapples, and coconuts, \$2,359,724. The total value of exports to the United States was \$42,873,401; to foreign countries, \$6,832,012. On the other hand, Porto Rico purchased from the United States merchandise to the value of \$37,424,545, of which purchases \$31,000,000 represented manufactures, \$4,894,747 rice, \$422,207 tobacco and the remainder garden produce. The aggregate external commerce of 1912 was \$92,631,886, or over five times as much as in 1901, and 17 per cent. more than in 1911. In view of the present multiplication of planting enterprises, the improvement of roads, the extension of irrigation and the great influx of new capital, it is reasonable to predict an early increase of the importance of the island as a competitor in the sugar, tobacco, coffee and citrus fruit markets of the United States.

Situated between 17° 54' and 18° 30' North Latitude, the island has a distinctly tropical climate and flora. Its crops grow all the year round. Trade winds so temper the sun's heat that it is never oppressive. The summer temperatures of the Eastern cities of the United States are unknown. The mean average temperature of the warmest summer month is but 79°; of the coldest winter month 73°. At San Juan, the Capital, the thermometer is never above 88° nor under 57°. Wide fluctuations do not occur—a fact which favors recovery from catarrh, even in bad cases. As a breeze is always blowing, except in May and October, the climate is, in fact, delightful. The average rainfall annually along the northern coast is 65 inches; along the

southern 40; in the mountainous interior over 100 inches.

Porto Rico is 1380 miles southeast of New York, which distance is covered by several lines of steamers within five days. It is 1460 miles from New Orleans, 1000 from Florida, 966 miles south of Bermuda and 450 miles east of Cuba. It lies in the route of vessels engaged in trade between Europe and the Panama Canal. Vessels plying between New York and ports on the Caribbean Sea take the Mona passage, within sight of the west coast of Porto Rico.

In outline the island is a parallelogram about 100 miles long, east and west, and 36 broad, with a total area of 3435 square miles and a land area of 2,046,290 acres. The population in June, 1912, was 1,149,396, of whom about 85 per cent. were "colored"—a mixture of negro, Indian and Spaniard—and the rest American, Spanish, French and English whites. The Americans number about 2500 in San Juan and 3500 in the entire island. In density of population Porto Rico exceeds all our States, except Rhode Island, Massachusetts and New Jersey. The masses of the people are extremely poor and illiterate, living insanitarily in box-like houses, with scant food and clothing. The peons of the interior live in shacks made of poles covered with palm leaves and bark, and go barefooted, with the result that the hookworm disease reduces them to a pitiable degree of anemia. The treatment with thymol and "salts" is curing many, but 300,000 still suffer from the hookworm, which preys on one's blood and reduces industrial efficiency almost to zero. Mentally, the Porto Rican is bright and quick, though uneducated. He is polite and cheerful, and ready to undertake anything at a moment's notice, however little he knows about it.

Geologically, the island is interesting. The West Indies are but the protruding tips of precipitous mountain ranges exceeding the Himalayas in their total height. Porto Rico is one of the summits of the great range of submerged mountains that form Cuba, Haiti and Jamaica. It is of volcanic origin, with summits from 2500 to 3700 feet above sea level. The mountains extend in general from east to west, with narrow coastal plains on either side. The descents from the main divide are abrupt. This precipitous character, with the heavy rainfall—reaching 169 inches sometimes in the interior—produces numerous torrential mountain streams suitable for the development of water-powers. At altitudes under 2000 feet are found masses of blue limestone of economic value, with caves rich in bat guano.

Every visitor to Porto Rico crosses the island from north to south over the famous commercial and scenic Military Road. Its charm for the tourist lies in the wonderful topography and tropical flora it brings into view. One is struck also with the wasting, scouring effect of tropical rains on volcanic material. The country the road traverses is an exhibit of innumerable seamed ridges with a washed-down look, suggesting nothing so much as a builders' sand pile after a thunder-shower. The volcanic rock is reduced after a time to a sticky red clay, fertile and good for growing coffee and tobacco. Here in the mountain valleys are seen tobacco fields, hundreds of acres

in area, covered wholly with cheesecloth, suggesting snow fields.

The coastal plains, formed of alluvium washed down from the mountains, also fertile, are devoted chiefly to growing sugar-cane. The sandy tracts near the sea are planted with palm trees, which are not seen in the mountains. The peons say a palm tree produces yearly as many coconuts as there are days in the year. Bananas are seen growing along the roadside in all kinds of soil. The royal palm is planted for its stately beauty, as the nuts it produces are fit only for pig food.

The resources of Porto Rico are almost wholly agricultural. There are few minerals and hardly any actual mines. The manufactures embrace only the operations required to prepare agricultural products for market. Spanish policy sought to compel colonies to send their products to Spain for final manufacture. On the south coast some 15,000 tons of salt are produced yearly by solar evaporation. Phosphate rock is obtained on the island of Caja de Muertos, in the Caribbean Sea, off the south coast—said to be the "Treasure Island" of R. L. Stevenson's famous romance. As seen from the top of the mountain, it is 20 miles away in the blue sea. Its beauty suggests an Elysium rather than the scene of John Silver's sanguinary proceedings. The mineral waters of Coamo, Arroyo, Caguas and Ponce have some repute, and Coamo has some vogue as a health resort. The island's water-powers are numerous, but so far little developed.

The relative importance of the present agricultural industries is indicated by the acreages devoted to the several crops and the values per acre of the land. The growth of sugar-cane employs 209,378 acres; coffee, 168,240 acres; tobacco, 17,175 acres; pineapples 3654 acres; oranges, 4567 acres; coconuts, 6556 acres, and minor fruits, 102,084 acres. Cattle rearing employs 1,033,392 acres. The island is fertile to the mountain tops, it is said, but not much over one-fifth of its area is cultivated. Should the whole of it be cultivated, and the peon, through the extirpation of the hookworm, become a virile and industrious laborer, Porto Rico might readily supply the United States with all the tropical produce it needs. Some 417,233 acres are in timber and brush, and 15,320 acres are marsh land. The sugar land is assessed as of an average value per acre of \$110.42; coffee, \$61.17; tobacco, \$77.91; pineapples, \$94.30; oranges, \$115.06; coconuts, \$101.24; minor fruits, \$27.35; pasture, \$25.89; timber and brush, \$10.99; marshes, \$15.70; the general average, \$34.98. The valuation seems high, but the profits reported by planters are phenomenal. The rate of interest is high—from 9 to 12 per cent. Banks loan regularly at 9 per cent. Houses are scarce and high-priced, and rents are extraordinary. Food is expensive, and prices in retail stores are about those of New York city. The coming of Americans has, as usual, raised prices, partly by raising the standard of living and in part by their readiness to pay without question whatever the native—who loves to dicker—chooses to demand. Porto Rico undoubtedly affords the capable American who has a little capital opportunity to make money fast.

Finances.

Porto Rico's revenue from all sources in 1912 was \$6,665,348, of which \$4,369,163 went to the insular government and the rest for schools and municipal government. The assessed valuation was \$178,275,000; debt, \$4,139,700; per capita wealth, \$275; per capita ad valorem property tax, \$1.42, against an average of

\$9.22 in "the States." The insular government is substantially supported by customs and excise taxes which, in Maryland, for example, go to the Federal Treasury.

Chief Imports from the United States

Insular imports from the United States increased over fivefold between 1901 and 1912—from \$6,965,408 to \$37,424,545. The increase continues. There is, accordingly, a good demand for manufactures and certain foodstuffs. Our producers will profitably study this list of the larger items of imports from the United States in 1912:

Rice.....	\$4,894,747
Iron and steel.....	2,303,650
Wood, etc.....	2,303,650
Fertilizers.....	707,124
Leather.....	1,599,047
Pork.....	1,346,000
Lard.....	906,189
Hams.....	540,124
Cars.....	1,587,344
Cotton cloth.....	2,933,194
Cotton, manufactures.....	2,642,448
Sugar, refined.....	754,204
Soaps.....	600,981
Tobacco, leaf.....	422,207
Beans and peas.....	543,577
Beer, spirits, wine.....	425,601
Paper.....	638,948
Cement.....	384,283

Roads and Automobiles.

In the excellence of its macadamized roads and other transportation facilities, Porto Rico compares favorably with the most advanced communities. The Military Road, extending 86 miles across the mountains from San Juan to Ponce, is a notable achievement in road engineering. Though built by the Spanish over 100 years ago, it equals the best modern practice as respects both way and bridge structure. To the 171 miles of macadam road left by the Spanish, American engineers have added 493 miles, making 664 miles of first-class road suitable for motor vehicles, besides 300 miles of fair wagon road. This renders the island a paradise for tourists, who can visit every part and enjoy its superb scenery in comfort. It also vivifies industry and trade by facilitating the transportation of produce from the interior to the coast cities for consumption or exportation.

One sees in Porto Rico an astonishing number of touring cars and runabouts, besides autobusses and autotricks. The traffic across the island is conducted chiefly by autotricks. On June 30, 1912, there were in use in the island 806 automobiles and 65 heavy autotricks. The latter are met at every turn, carrying heavy articles that require quick delivery. Their rivals are the ox-teams. Four oxen are allotted to a wagon and two men, one behind with the wagon and the other ahead with a long bamboo pole to guide the team. The yoke is placed against the ox's forehead, not on the neck, as with us. Third in grade as freight handlers come the pack mules, as in Spain or Italy. The horse is small—so small that he is little used for traction or plowing.

The roads are built by engineers, not by local farmers, which accounts for their excellence and small cost. The island has paid in all \$7,061,033 for roads. Till recently macadam cost \$6000 a mile; with convict labor the figure is \$5500. The annual expenditure on roads is \$718,265; upkeep is \$304 per kilometer. Asphalt is employed with success to prevent the rapid destruction of the roads by autotricks. Railways, aggregating 373 miles, nearly encircle the island. San Juan and Ponce have electrical tramways, and the insular telephone system is fairly complete. The electric light is common.

Contrasts, Wealth and Poverty.

One is impressed with the wealth and fine houses of the planting, professional,

*Porto Rico was discovered by Columbus in 1493; settled by Ponce de Leon 1508; annexed by the United States under the Treaty of Paris in 1898.

merchant and banking classes of the cities, and the unspeakable poverty of the masses in city and country. The peon, thanks to the climate, needs little clothing and shelter, and has less. He is anemic, hungry, small and weak. In town his home is a box-like structure, in which he is sardined with less than 100 cubic feet of air; in the country it is a shack of poles covered with palm fronds and bark. His two rooms are mere bunks. He goes barefooted, and the hookworm enters him by way of his soles to prey on his blood. His menage affords no facilities for decency, and his morals are lax. Children go naked till the fourth year, and few know who are their fathers.

Wages are too low to provide the peon with more than the necessities of life. They range from 40 to 75 cents per day for men, and much less for women and children. Yet wages are now much higher than they were in 1898.

Irrigation.

Much money is being spent in engineering works, not only in road-making, building bridges, deepening harbors, constructing docks and draining marshes, but also in creating irrigation systems, with the necessary dams, reservoirs, tunnels, canals, spillways and channels. The development of water-powers and the installation of electrical plants follow as incidents of the scheme. Over the northern coastal plain the rainfall is adequate; in the mountainous interior it is excessive, exceeding 100 inches per annum; in the coastal plain south of the mountains it is deficient, averaging but 40 inches, and sometimes falling to 20 inches. The loss in sugar in the dry zone, 50 miles long, between Patillas and Ponce, in 1907-1908, owing to lack of rain, was estimated at \$4,000,000. This zone, from one to four miles wide, has sugar-cane for its only important crop, and cane requires abundance of water. Corporations hold most of this cane area, having obtained it in concessions from the Spanish Government, together with exclusive water rights. But even so their water supply is insufficient for irrigation, and they have had to install numerous expensive pumping plants. Much fertile soil is still subject to drought.

The Porto Rican Government is accordingly now spending \$3,000,000 to create two irrigating systems, with an aggregate irrigating capacity of 35,000 acres. By means of tunnels water is to be conveyed through the mountains from the region of abundance to the region of scarcity. The Patillas Dam, of the eastern system, is 135 feet high and 1000 feet long, with a capacity of 11,800 acre feet. A tunnel conveys the stored water 589 feet through solid rock and delivers it to a canal which is 25 miles long. All structures are of concrete. It may be noted, to get an idea of the difficulty of the enterprise, that this 25-mile canal means three long tunnels, three siphons, four flumes, 100 bridges, spillways, etc.

The Carite Dam, 100 feet high, 539 feet wide, with a capacity of 9700 acre feet, sends water through a 3000-foot tunnel to the Guanani River, whence another dam and canal divert it into the Patillas Canal. As the Carite Dam is 1700 feet above sea level, the descent to the plain is being utilized to develop 1700 horsepower and operate an electric plant. In the west also there are dams, canals and incidental water-powers. The Toro Negro Dam, north of the Divide, 36 feet high and 300 feet long, diverts a river through a 2865-foot tunnel into the Jacaguas River. Here, south of the Divide, the water is stored in a stone dam 112 feet high and 800 feet long. The Juana Diaz Canal conveys the water thence 25 miles

to the Salinas River. The entire project will be completed in 1913.

Politics.

The census of 1899 showed that but 15 per cent. of the Porto Ricans could read and write, while but one-half of 1 per cent. had more than elementary education. Yet virtual universal suffrage was conferred upon them, with results not unlike those witnessed in the South after the Civil War, during the period of negro domination. But for the fact that the Governor and Executive Council are appointed at Washington, Porto Rican administration would probably by now have reached a condition of corruption and anarchy similar to that of Haiti, which is a near neighbor. Public schools and missionary labors have diminished the illiteracy just mentioned, but they have not materially increased the sense of political responsibility on the part of the native bosses who control the masses. The Legislature, dependent on the bosses, occupies itself with "peanut" politics and factious opposition to the Executive. In 1909 President Taft had to issue an official rebuke to its effort to widen opportunities for graft by refusing to vote appropriation bills.

The Porto Rican is excitable. He cannot, like the Anglo-Saxon, talk politics with his hands in his pocket. His Spanish tongue favors rhetorical utterance, and the chocolate-colored orator of the Plaza, in San Juan, is often heard enforcing his points with lively gesticulation. Politics in Porto Rico means hatred and faction. Men of one party will not speak to those of another party. In 1900 the capital was for several days in the hands of a mob.

At the American occupation the people divided into two parties, Republicans and Federals, the former supporting the American regime, the latter opposing. Both parties favored universal suffrage, a territorial government and the early admission of Porto Rico as a State. The Federals demanded local autonomy and larger powers for municipal councils. In 1904 they resolved themselves into "the Union party," and at once got control of the elections. Since 1909, failing to get on satisfactorily with the Governor and the Executive Council, the Union party has been most vigorously denouncing the American regime, and the Republican party now does the same.

At present a majority of the Porto Ricans seem openly hostile to the American Government. No immediate violence is likely, but the discontent is pronounced. The opposition is no doubt to a large extent factitious, being an expression of the desire of the bosses to bring the administration down to the level of their own intelligence and aims. They know, perhaps, that the people are now better off than at any time in the last 400 years, but an alien regime can easily be made odious. Yet it must be confessed that they have grievances which should be removed. One of them is the decision of the United States Court that Porto Ricans are not American citizens. They cannot be naturalized, because they are not foreigners; they are neither native-born nor adopted Americans. They have lost their Spanish citizenship without gaining the status of citizens of the United States. The injustice is obvious.

Another grievance is the American method of taxing property, instead of the income from it—a method objected to as smacking of confiscation. Greatest of all is the grievance of the proposal of the tariff bill to make sugar free. This excites angry comment, since it will hit hard the sugar planters, who employ many laborers. "You destroyed our coffee

trade," they say, "and now you mean to ruin our sugar business." Add that many voters are out of work, and they, as usual, right or wrong, are "agin the Government."

Education.

The best work of the American Government in Porto Rico has been its institution of an incorruptible judiciary and its creation of an efficient system of public schools. The Spanish left few schools, and those worthless. The teachers, for instance, were ignorant politicians, some of whom took their siesta in school hours, and of the noisy, undisciplined pupils, not a few went naked. The island owned but one public school building. At present it owns 318 graded and rural school buildings, not including high and normal schools and the university. The Washington Government gave \$200,000 for school extension, with the result that in 1901-1902 874 schools were in operation. In June, 1912, there were 1168, and out of 350,000 children of school age, 160,567 were enrolled, as against 26,000 in the first year of American administration. The average daily attendance is 114,834, or 10.3 per cent. Teachers number 1781. In nearly all schools some instruction is given in English. The insular government's expenditure on schools in 1912 was \$980,375; local expenditure \$386,434. White and colored children attend the same schools, and even in American Protestant churches the negro sits among the whites. The color line is not drawn in Porto Rico. The gentleman may be of any tint—Spanish, American, white or dark-skinned Porto Rican of mixed ancestry, or the pure-black negro.

Sugar.

In 1901 the exports of sugar from Porto Rico were 68,909 tons, worth \$4,715,611; in 1912 they were 367,145 tons, worth \$31,544,063. These figures show the enormous development of the sugar industry caused by the free admission of the island's product to the protected market of the United States and they explain the dismay with which Porto Ricans regard the proposed removal of the protective duty. Cane-growing is by far the island's most important interest as respects the amount of capital invested, the acreage planted, the number of laborers employed, the wages paid and the value of product. The change of sovereignty in 1898 placed the cane industry of Porto Rico on an equal footing with that of Louisiana. This gain is emphasized by the fact that the Pearl of the Antillas, having perpetual summer, grows a cane larger and sweeter than the Louisiana cane, and decidedly more productive than the sugar beet of the West. Porto Rico planters accordingly win exceptional profits and their prosperity is very marked.

The best lands for the crop are the fertile low level coast country, which is susceptible of irrigation in the dry season. The area of the coast country is so limited that in recent years cane is being planted in interior valleys and on foothills not well suited to its growth. This extension pays at present sugar prices, but these new fields, being of inferior productivity, will probably have to be abandoned when the pending tariff bill becomes a law. Experts expect the law, if passed, to throw out of cultivation all inferior sugar lands, both those of the interior valleys and foothills and those of the coast which have had their fertility exhausted by neglect of rotation of crops and fertilization. Owners of sugar plantations and centrals have therefore induced the Legislature to appropriate \$7500 to pay the expenses of a delegation sent to Washington to oppose the

pending tariff bill. Mr. Travieso, member of the Executive Council, or Upper House, a prominent Porto Rican, is a member of this delegation.

There are, however, in the sugar industry persons who affirm that sugar men who have adequate capital have nothing to fear from the tariff bill, even if sugar should be made "free" after the lapse of three years. It would reduce profits, but leave them sufficiently high. An official of a prominent "central," or sugar mill, who had had experience of the business in both Louisiana and Porto Rico, poo-pooed the fears of the people. Only the little man who sells when prices are lowest gets hard hit. In former times, when ox-power was employed to crush the cane and the juice was evaporated in open kettles, the small capitalist could engage in the business of making brown sugar. Not so now. At present he must sell his cane to the Central—owned by a company—which supplements its own crops by purchases from its neighbors.

I visited the Vannina Central, near Rio Piedras, and saw the process of sugar-making from the crushing of the cane to the crystallization of the sugar. A narrow-gauge railroad brings the cane in open cars from the field to the Central. There it is hoisted by a spider crane in huge batches and swung 100 feet to a broad hopper, through which it passes to steel rollers designed to squeeze out every particle of juice. Lime water is added to the juice to precipitate undesirable elements, after which the clear yellow juice is heated and evaporated in vacuum pans till it is ready to crystallize. Centrifugal mills throw out the molasses adhering to the brownish crystals, which are put into bags, 250 pounds to a bag. The Vannina Central is three years old. It cost \$225,000. Its daily output is from 800 to 900 bags. The raw juice contains, I was told, from 9 to 16 per cent. of sugar, the percentage varying with the season. The Vannina is a comparatively small Central among the scores that dot the coast country. Yet it is impressive by reason of the huge agglomeration of intricate and expensive machinery it contains. In volume and dazing effect on the layman it compares with the bowels of a first-class modern ocean steamer. It is evidently too costly for individual enterprise.

The great Central, that at Guanica, on the south coast, west of Ponce, is next to the largest in the world. It is of enormous extent and output, being supplied with cane from the vast irrigated plains of that quarter of the island. Much of its cane is from its own plantations. The Sugar Trust, which owns the Guanica, is said to be erecting nearby a refinery to convert the brownish crystals into "granulated." It is a sight worth seeing to watch a regiment of men, armed with machetes, attack a field of tall cane, thousands of acres in extent. It suggests discipline, organization and great achievement.

Coffee.

At the time of the American occupation of Porto Rico the principal industry was the growth of coffee. Spain's colonial policy was to favor by law a certain crop in one colony and a different crop in an adjacent colony. Coffee was the favored crop in Porto Rico, the tariff laws of the mother country being so framed as to encourage it. The industry was developed during the period of slavery, when land was granted to planters in areas proportioned to the number of their slaves. When emancipation came in 1873 the planter lost little by the change, the ex-slaves continuing, under a patriarchal system, on his land and in his employment, at a low rate of wages. His plan-

tation was in many cases a separate community in which he lived with some splendor, surrounded by numerous dependents. The latter were his laborers, and felt that they belonged to the plantation. They bought supplies at the planters' store, using plantation orders in lieu of money. The conditions of life were in the main quiet and pleasant for both the proprietor and the peon, and the coffee industry, under Spain's favoring economic system, was fairly profitable. Money was easy to get, though at high rates of interest, and careless planters, not foreseeing the war of 1898, or its event, incurred heavy debts. The American occupation wiped out the tariffs or bounties provided by Spain, without creating by way of compensation a market for Porto Rican coffee in the United States, where Brazilian coffee is preferred. In the fiscal year 1912 but 414,656 pounds of Porto Rican coffee were sold in the United States, the bulk of the crop, 39,731,709 pounds, being exported to foreign countries. The coffee planters were further injured by the fact that Spain and Cuba after 1898 imposed duties on Porto Rican coffee.

The financial disaster thus caused was enhanced by the hurricane of 1899, which destroyed the coffee trees, washed away the fertile soils and wrecked the plantations. The planters were ruined, and the peons were left in such a deplorable state that the Washington Government sent \$2,000,000 worth of supplies into the coffee lands of the interior to save the people from starvation. Recovery has been slow. Between 1892 and 1896 the average value of the annual exports of coffee was \$10,872,000. In 1901 the value was but \$1,678,765, and in 1912 it was but \$6,754,913.

The Porto Rican berry is said to possess a peculiar aroma which is much relished in France and Cuba—an aroma which the American method of preparation fails to conserve. The further claim is made for it that it contains a very small percentage of caffeine. Efforts are now being made by the insular government to introduce Porto Rican coffee in the American market through its Commercial Agency, 569 Fifth avenue, New York, where it is sold in tins—in a form enabling the buyer to identify it. Americans, it is urged, should buy American coffee, especially since it is the best in the world.

Coffee planters now diversify their crops by adding to their output oranges, wood, charcoal and honey. Wages are low, from 40 to 60 cents a day. The groves of coffee trees are being rapidly restored.

Tobacco.

The tobacco industry, owing to the tariff, has had large growth in the last decade. The plantations are in the interior, on the hills and mountains, where land is cheap. Little capital is required for planting and no expensive machinery, as in the Centrals. Most of the tobacco crop is grown by small farmers, and there is competition for labor. Men get from 60 to 75 cents per day, according to the season.

A modern development is the covering of the growing plants, over wide areas, with cheesecloth. An area 100 acres in extent will be seen thus covered with one sheet of white. The cloth is supported by wires 10 feet above the ground, the wires being attached to poles. Width is sewed to width, so that the protection is complete. The expense, however, is so considerable that the small planter cannot afford to use the cloth. Tobacco thus protected is of fine texture, thin and free from holes caused by biting insects. The Porto Rican leaf, it may be added, is

quite small in comparison with the Virginia tobacco leaf.

The manufacture of tobacco has increased greatly since 1898. Large buildings now exist in the towns for the production of cigars and cigarettes. Armies of men, women and children are employed. A skillful cigarmaker gets from \$6 to \$18 a week. Some factories employ over 880 hands. The mode of payment is so much per 1000 cigars.

A reader is employed in each large room of a factory to read to the cigarmakers some four hours a day while they work. He reads a paper, or book, or poem, in a forcible way. Sometimes he puts great spirit into his reading, gesticulating vigorously as he pours forth the not un-musical Spanish vocables. One is reminded of "Casey at the Bat" when recited dramatically by De Wolf Hopper. Americans say the Porto Rican must use his hands for gesticulation when he talks, and the reader is employed to keep the men from talking and so from letting up on their work. Others say that the workers employ the reader.

The production of cigars in 1912 was 281,448,271; cigarettes, 543,724,350. The leaf exported was 5,456,751 pounds. In 1901 the leaf and manufactured tobacco exported had an aggregate value of \$684,391; in 1912 this aggregate was \$7,430,195. It is a growing industry.

Fruits.

The entire citrus group grows readily in Porto Rico. The main line of progress has been in the production of oranges, grapefruit and pineapples. Florida and California oranges are grown, including the navels. The grapefruit of Porto Rico is said to be of superior quality. Many planters, impelled by the high prices it fetches, are substituting grapefruit for oranges. They claim an advantage over their Florida competitors in freight rates and in the fact that their orchards never freeze. As respects Cuban rivals, they have the advantage of not paying a duty at the custom-houses of the United States. Much American capital is going into the grapefruit business. A new orchard, 70 trees to the acre, costs, it is said, \$250 per acre by its fifth year, when it begins to pay \$110 per acre net, and when eight years old pays \$600 per acre net.

Pineapples and bananas flourish everywhere, and large profits have been made in their production. They are within five days of the New York market. When New York prices for pineapples are unsatisfactory, they are canned. But such is the demand for the green fruit that the canneries are often short of stock. Coconuts begin to be exported in some volume. Other fruits under trial are the mango, the large banana, the aguacate, with various foreign nuts and fruits, which have not yet begun to figure among exports. The ordinary Porto Rican banana is much smaller and sweeter than the kinds to which we are accustomed in America. It seems to grow anywhere, and every rural peon has a patch. In 1901 exports of fruits were worth but \$100,801; in 1912 they were \$2,377,762; consisting of oranges, \$584,368; pineapples, \$683,801; grapefruit, \$524,976; coconuts, \$301,970, besides \$258,671 of canned pineapple.

SELF-PROPELLED STEEL BARGES.

New Era for Inland Waterway Commerce in the South.

[Special Cor. Manufacturers Record.]

New Orleans, La., June 4.

The first self-propelled steel barge of the Alabama & New Orleans Transportation Co. was launched this afternoon at the company's shipyards at Violet, on the Lake Borgne Canal, 12 miles below New

Orleans, in the presence of a large gathering of representative people, including Mayor Behrman and officers of the company. It was the first craft of the type to take the water in the South, and is universally conceded to signalize a new era in inland waterway commerce. This is the first fleet of 16 identical boats, which are to be finished and put in service at the rate of one a month till all are completed. The hull is 240 feet long, 32 feet wide on deck, 28 feet wide at bottom, 8 feet deep on the sides and 8½ feet in the center, with six-foot draft at full load of 1000 tons. Unloaded, the barge draws two feet aft, and two feet all over when loaded with 200 tons. Five hundred tons will draw three feet, so it is possible to regulate the cargo to the navigation of any shallow stream that is navigable at all.

The barge has a covered deck. The hold, outside of bulkheads at each end, in one of which will be the engine and the other the cabins, with accommodations for six men, may be utilized for carrying molasses or liquids which may be pumped in and out, but as it is cross-braced throughout, it will not be available for bulk freight. All this will be piled on the deck. Coal will be loaded in wooden bunkers and miscellaneous cargoes will be piled up and covered with tarpaulin.

This type of boat is similar to those in use in Europe, with modifications by John H. Bernhard, engineer and general manager of the Alabama & New Orleans Transportation Co., who comes from a line of noted shipbuilders in Holland. After several years' experience in this country, Mr. Bernhard was attracted to the possibilities of developing inland waterway transportation in this vicinity, and within a comparatively few months he has worked out to a successful inauguration a new system, with ample capital behind it, and within a few days will be hauling coal from the Warrior coal fields of Alabama into not only New Orleans, but far into the interior of Louisiana, through rivers, bayous, lakes and canals, and carrying return cargoes of every sort of produce, and at reduced rates for freight. That the beginning made today means incalculable benefits to this section and eventually to the entire South—for a great extension of this kind of service seems inevitable—no one has denied who has made even a cursory examination of the principles of the system.

All of the speakers on the program today recognized the advent of the Bernhard activities and the inauguration of his barge line service as marking a new epoch in the development of New Orleans and the entire section. Leon C. Simon, president of the Association of Commerce, was master of ceremonies, and in introducing Mayor Martin Behrman voiced the gratification of the commercial interests of New Orleans over the facilities Mr. Bernhard's company has provided for a greatly-increased commerce for this port.

Mayor Behrman reviewed at length the early glories of river transportation on the Mississippi. The floating palaces of old have gone forever, but the tremendous development of transportation on our great lakes and the water transportation in use by the countries of Europe show the extent to which the waters of the South may again be utilized when such modern systems of transportation as that of Mr. Bernhard's company shall be in complete operation. The significance of the new departure in its effects on the growth of commerce could not be over-estimated.

A. H. Seaward of the Merchants and Manufacturers' Association predicted a great stimulus to commerce and the

growth of manufacturing through the cheap and readily available transportation the barge line would provide.

T. F. Cunningham, on behalf of the Board of Trade and the Public Belt Railroad, welcomed the barge line as a valuable addition to the facilities of the municipally-owned railroad, and gave enthusiastic accord to the conviction that the barge line would prove beneficial to every interest here.

Mr. Bernhard briefly thanked the speakers and the assemblage, among whom was a considerable number of ladies, for their presence and their expressions of good-will, and promised to complete the full fleet of 16 barges at the earliest possible moment. He testified to the excellence of the common negro laborer of the South. Barge No. 1, which was to have been launched first, got stuck on the ways, and he had been compelled to crowd all efforts on the completion of barge No. 2, so that a launching would be possible today. The 250 hands, largely negroes, whom he had gathered from the fields and woods a short time ago, buckled down to the work with all faithfulness, and the hull of No. 2 was now ready to be launched. The ceremonies were held on the deck of No. 1, and at the conclusion of Mr. Bernhard's talk Mrs. Bernhard christened No. 1 Nicholas A. Bernhard, her husband's father's name.

All then went to the ways, where No. 2 was ready to be launched. Gracefully she slid in, nevertheless, amid the cheers and handclapping of the multitude and the screeching of engine whistles.

No. 1, the Nicholas A. Bernhard, will shortly take the water, as she is undamaged and not on a strain, and as soon as possible will begin regular trips. For the present, service will start on a 10-day schedule. With the second barge it will be reduced to a five-day schedule. As new barges are added there will be more frequent service, until eventually there will be semi-daily service. A stated schedule of rates will be maintained which is very materially below railroad rates, in some cases 20 per cent.

The initial service will be between the Warrior coal fields and the terminus of the Lake Borgne Canal at Violet. A short line of railroad operates from the heart of the Warrior coal fields into the loading place at Gilmore, on the Black Warrior River and the Warrior and Southern branch of the Mobile & Ohio Railroad, 10 miles above Tuscaloosa. The route of the barges will be down the Black Warrior from Gilmore to Tuscaloosa; down the Warrior to the Tombigbee, and thence into the Mobile River, Mobile Bay, Mississippi Sound and Lake Borgne Canal. The distance from Gilmore to New Orleans is about 525 miles. The boats will operate on a schedule of seven miles an hour.

A comprehensive description of the Alabama & New Orleans Transportation Co.'s plant, shipyards, terminals, traveling coal-loading tower, gas-producer engines, etc., was printed in the MANUFACTURERS RECORD of May 1.

ALBERT PHENIS.

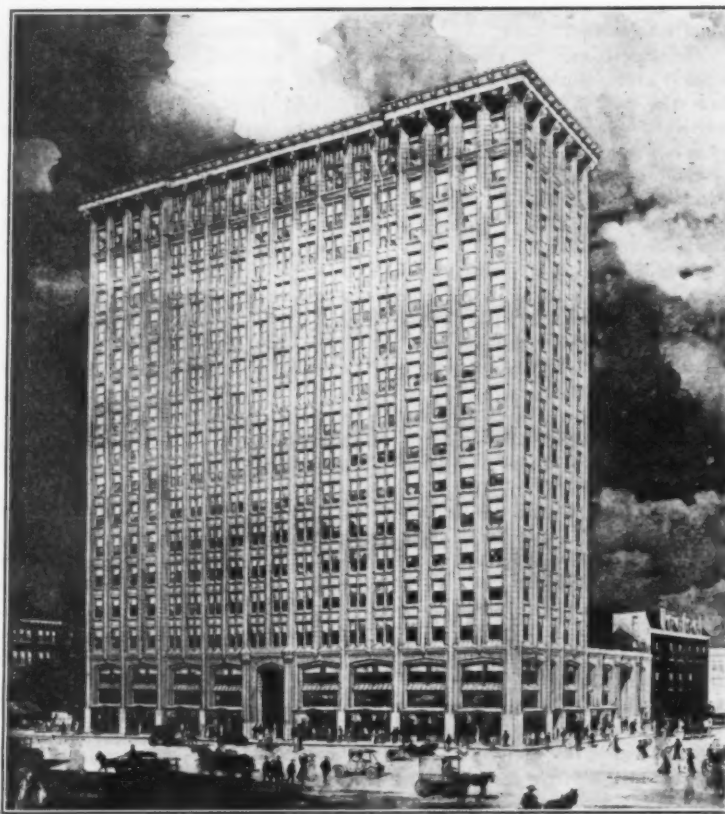
The Birmingham Iron Market.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., June 8.

The buying in the pig-iron market has not been stimulated to any appreciable extent by the decline in prices, except in the East, where some tonnage of basic and foundry grades has been placed, and the necessity of further curtailment in output by local furnace interests is more clearly indicated. In strictly Southern territory the \$11.50 per ton schedule at Birmingham on a No. 2 foundry basis has

been maintained for such small quantities as have been purchased, but the larger requirements have been held in abeyance for lower figures, and in competitive sections such a price has proven prohibitive of trading. There has been considerable tonnage against the local output sold in competitive sections, and at the lower figures that were necessary, but the extent of sales nor the brands involved cannot be stated with accuracy. It is quite certain that the majority of the producers are not yet willing to accept a lower price than \$11.50 per ton at Birmingham for No. 2 foundry, and are even unwilling to consider a greater differential than 25 cents per ton on that price for the low grades. At the same time, shipments are considerably short of the make at a number of the largest plants, and the unfilled tonnage on order books has been materially reduced in the past 30 days. By reason of a reduction in the output a certain plant is now forwarding a larger tonnage than is being produced, but in this case the surplus stock on hand is probably larger comparatively than at other plants. The sales made in the past week involve some 6000 to 7000 tons, practically all of which is for early delivery. The largest single consideration was a lot of 2000 tons of high manganese iron, which sold at a premium of \$1 to \$1.50 per ton over the No. 2 foundry price. A lot of 1500 tons of high silicon No. 2 soft was sold at \$11.50 per ton at Birmingham, and 400 tons of No. 2 soft brought the same figure. Carload lots sold in the week at \$11.25 to \$11.75 per ton at Birmingham, depending upon the grades purchased and the analysis content specified. The presence of a fairly strong demand for carload and 100 to 150-ton quantities is perhaps the most encouraging feature just at this time. These small lots are being purchased in practically all quarters of the trade and by parties who ordinarily buy more extensively. The condition is taken as substantial evidence that all requirements are gradually becoming more urgent, and accordingly the selling interests are more hopeful of the results when a firmer selling price has been established. It appears that many of the larger consumers have had a basis of \$11 per ton at Birmingham in mind as a price consideration for the additional requirement in the last half of the year, but that since such figures are practically reached, still lower figures are being awaited. Recent offers of \$11 at Birmingham for round tonnages have been declined where No. 2 foundry was specified, although No. 3 foundry in the same quantity would have been furnished at \$10.75 per ton Birmingham. The grades below No. 3 foundry are higher in all cases relatively than the first grades, as very little of the former has been produced in some weeks. This is especially true of gray forge and mottled, or those grades that are required by the mill interests. As to what action will be taken by the furnace interests in the matter of price, there is more or less speculation. The majority of local concerns continue to insist that selling prices have declined to the cost level even at the larger plants, and that further curtailment of the production rather than force a market at the expense of selling prices must necessarily result. But in other quarters there is a disposition to meet conditions with prices sufficiently low to warrant furnace operations until the extent of the overproduction, if any, is indicated clearly. In view of the fact that large manufacturing concerns like the Westinghouse Company have recently entered the market at ruling figures, it is felt that the present selling prices have become attractive; but



THE HEALEY BUILDING, ATLANTA.

Under construction for William T. Healey; 114x200 feet; to be erected in sections; first section to be 16 stories above and two stories below grade; other to be two stories above and two stories below grade, with foundation to support 14 additional stories; steel frame, fireproofed with terra-cotta; granite base; plain and ornamental terra-cotta exterior; three entrances, two stories high; rotunda, 50x30 feet; six elevators; Gothic architecture; will provide about 500 offices; cost about \$900,000; associate architects, Morgan & Dillon and W. T. Downing, Atlanta; general contractor, R. M. Walker, Atlanta; contractor for steel, American Bridge Co., New York; terra-cotta, Atlantic Terra-Cotta Co., New York; elevators, Otis Elevator Co., New York; granite, Stone Mountain Granite Corporation, Atlanta; plumbing, sewerage, steamfitting and water-cooling system, M. C. Vandiver Company, Atlanta; light and power wiring and metal conduit system, Peters-McKinney Electric Co., Atlanta.

notwithstanding the inquiry that has been made, Southern producers have been favored with a very small tonnage comparatively, and negotiations for the most attractive requirements are apparently no more nearer termination than at the time of last report. Summarizing, another decline of 50 cents per ton at Birmingham has been suffered, without increasing sales to any appreciable extent. A larger volume of inquiry has resulted, but there is still a difference in price between the selling and consuming interests. For delivery in the remainder of the year quotations are revised as follows per gross ton at Birmingham for strictly Southern territory requirements, viz.:

No. 1 foundry, \$11.50 to \$12.
No. 2 foundry, \$11 to \$11.50.
No. 3 foundry, \$10.75 to \$11.25.
No. 4 foundry, \$10.50 to \$11.
Gray forge, \$10.25 to \$10.75.
Mottled, \$10 to \$10.25.
Standard basic, \$11.25 to \$11.75.
Warm-blast charcoal iron, \$24.50 to \$25.

In competitive territory the schedule above, except for basic and charcoal iron, is subject to shading, with the several local furnace conditions governing.

In the cast-iron pipe market report is made of a very attractive tonnage as pending for export, the most significant of which is the requirement for Cuba and for Buenos Aires. There is also an attractive tonnage in sight for Chile and Porto Rico. All of this just mentioned is under consideration, although just at this time it seems that Eastern manufacturers are most interested. While no awards of consequence to Southern or lo-

cal producers is in sight for the immediate future, the export requirement mentioned is quite a feature in considering the market, and the placing of such tonnage in this country would, of course, lessen the competition for such tonnage as is required for domestic use. It is believed that with the satisfactory disposition of municipal bonds there would come forward sufficient tonnage from Southern cities alone to take care of the aggregate output during the remainder of the year, but the business now being placed is quite unsatisfactory. Except for the curtailment effected some weeks ago, all local plants continue in operation, notwithstanding the fact that a significant portion of the output is being stocked. The new plants at Anniston, Ala., and at Boyles, Ala., are being rushed to completion, and it is understood that both will be operated just as soon as practicable. For the smaller sizes and for cast-iron soil pipe the demand continues fairly strong. Price considerations for both these last are quite at variance, however, with the stock accumulation, unusually large for this season of the year. In the absence of large contract lettings, prices are rather uncertain, but for the small lots being placed the following applies per net ton at Birmingham for class "B" or water pipe, with \$1 per ton extra for class "A" or gas pipe, viz.: 4-inch, \$20.50; 6-inch and up, \$19.50, with special fittings quotable at \$42.50 to \$47.50 per net ton at foundries.

Market conditions are unchanged for furnace and foundry coke, and steam coal continues to move in such volume as to warrant full operations at practically all

mines. The domestic movement is short of that for last year, but prices are higher, and the average to operators, after taking into consideration the higher prices being received for the screenings, or the steam grades, is more satisfactory.

The new coal washer at Banner Mines, Ala., has been completed by the Pratt Consolidated Company. The output from that operation has been increased to 1800 to 2000 tons per day. This mine is being operated by the State of Alabama with convicts for the Pratt Company at a fixed price per net ton f. o. b. cars at mines.

The demand for old material has not improved, and aside from a few scattering lots of machinery and steel scrap, no tonnage is being moved. Dealers are not adding to their holdings, and in many cases the yards have been depleted of all grades. In the absence of trading the schedule of prices cannot be revised, but the market is quoted as being lifeless, without an improvement expected until the condition of the pig-iron market improves.

The erection of 75 houses for employees has been commenced on the property of the American Steel & Wire Co. at Fairfield, Ala., and the force installing the remainder of the machinery at that plant is being increased as rapidly as is practicable.

The American Fertilizer Handbook. Ware Brothers Company, Philadelphia, publisher. Price \$1.

The 1913 issue of this standard reference book and directory of the commercial fertilizer industry and allied trades contains a number of special articles, including "The National Fertilizer Association," by the editor of the handbook; "Fertilizer Material in the United States," by Frank K. Cameron of the National Department of Agriculture; "The Year's Progress in the Fixation of Atmospheric Nitrogen," by Thomas C. Pinkerton of Philadelphia; "Middle West Soil Improvement Committee," by Henry G. Bell; "Annual Review of the Fertilizer Market," "Menhaden Industry," by J. W. Turrentine of the National Department of Agriculture; "Sampling of Fertilizers," by J. S. Brogdon of Atlanta, Ga.; "The Sulphuric Acid Industry," by Andrew M. Fairlie of Copperhill, Tenn.; "Fertilizers for Hay and Pastures," by Prof. Edward B. Voorhees; "Cyanamid," by E. J. Pranke; "The Revolution in Tennessee Phosphate Mining Practice," by Lucius P. Brown of Nashville, Tenn.; "Florida Phosphate Rock," by Dr. E. H. Sellards, State geologist; "Tennessee Phosphate Rock," and some analyses of fish scrap, by J. R. Lindemuth and E. G. Parker. Sulphuric acid tables and tables for fertilizer formulae are also given, together with a directory by States of fertilizer manufacturers, of cottonseed-oil mills and of allied trades.

Standard Legal Forms. By Edward T. Lee. Publisher, American School of Correspondence, Chicago.

This is a compilation of the more common legal forms used in business and in actions at law and suits in chancery, and is prepared for the guidance of students and laymen. No attempt has been made at an exhaustive collection, but typical forms have been selected which may be varied and adapted to cover a much larger number of cases. In this connection it is suggested by the compiler that as some differences exist in the form required in different States, it is advisable, in drawing any legal document or pleading, that the statutes and established forms and precedents of the State where the draftsman resides should be followed.

TEXAS INTERCOASTAL CANAL.

Inland Waterway of 200 Miles from Galveston to Matagorda Bay.
[Special Cor. Manufacturers Record.]

Freeport, Tex., June 3

The Texas Intercoastal Canal system of connected and sheltered light-draft waterways is now completed. On Thursday at midnight, May 29, the last few feet of dredging that remained to be dug was finished. In the presence of Col. C. S. Riche, United States engineer in charge of the Galveston district, under whose supervision the canal was dug, and several invited guests of local prominence, the last barrier crumbled away and the waters of two great rivers, the San Bernard and Brazos, mingled. Texas' first great inland waterway was finished, and a new and useful waterway through the midcoast country was open for navigation ready to serve its people as an avenue of transportation.

The canal runs from Matagorda Bay to Galveston, a distance of 200 miles, along its main line, and with its branches totaling over 800 miles in extent, has been done at a cost of approximately \$564,000 to the Federal Government. The estimate cost of maintenance has been put for this canal by the United States Engineers at \$50,000 per annum from now on.

The Matagorda Bay and Brazos River section was started on May 22, 1911, at the Brazos River end by the Metropolitan Contracting Co. of Texas City, the first dredging to be done by the suction dredge Velasco. Work on the Matagorda end of the waterway was started September 6, 1911, through Dog Island Reef by the same company with its 16-inch suction dredge Matagorda. The dredging done covered a distance of 45 miles. Under the Government contract the work was to have been finished January 7, 1913, but an extension of the contract with the Metropolitan Contracting Co. was made by the United States Government engineer in charge of the Galveston district on September 14, 1912, allowing the contractors six months more time, or until June, 1913.

The finishing of this section of the canal on May 29, 1913, gives a period of two years and 27 days in which the work was finally completed. Approximately 2,167,000 cubic yards were excavated in the construction of this section, for which the Government paid an average price of 10 cents per yard, bringing the cost of this 45 miles up to \$216,700.

The canal as completed from Matagorda Bay to Galveston, including the new canal dug and the improvements made on the Brazos River and Galveston Canal, which was dug before the war by a private corporation and afterwards purchased by the United States Government, gives a waterway six feet in depth, with a minimum depth of five feet of water at mean low tide, with an average width of 75 feet. Every nautical mile, or 6000 feet, turning-basins have been constructed 200 feet long and 25 feet wide.

In the cost of constructing the canal the amount necessary to construct bridges across the waterways have figured in a small way. In the last section to be built \$12,000 additional to the \$216,700 cost of the dredging has been applied to put in bridges.

The Texas coast canal movement had its beginning many years ago. The old Galveston and Brazos canal was constructed in 1856. No figures are available as to what the cost was at that time, but it is believed to have been in excess of the \$20,000 which the old corporation received for the waterway from the Federal Government. The ruling depth of

the canal at that time was 18 inches. Since it has been taken over by the Federal authorities it has been reopened and redug to a depth of 5 feet at mean low tide, and a width of about 35 feet.

The citizens of Texas have every reason to honor and give credit to Lieut.-Col. C. S. Riche, United States Engineers, now in charge of the Galveston district, for his untiring efforts in securing the Texas Intercoastal Canal system and for his unwavering support of their project. Following the 1875 survey, which was conducted by Captain Howell from the New Orleans office, the few who advocated the canal received little attention from the Federal authorities and Congress until in 1899, when Colonel Riche, then a captain and stationed at Galveston, took up the project with enthusiasm and characteristic energy. He at that time inaugurated, devised and worked out the present canal route, and, getting behind it, saw it through. In 1899 Colonel Riche had Capt. S. M. Wilcox of his staff, then a field engineer, now his assistant engineer at the Galveston office, to make a survey of the much-talked-of canal from Galveston to Matagorda Bay as a side issue. Captain Wilcox caused this to be covered carefully and completely, and, backed by this survey, Colonel Riche was able to present a comprehensive and practical plan that met with Congressional favor. Since then he has worked consistently and ardently to see his plans materialize, and has for many years been responsible for the carrying out of the entire canal scheme.

In order to make the waterway continuous system from the Mississippi to Corpus Christi so that shipments via this route can be made from Pittsburgh, Pa., to Texas intercoastal points, but 58 miles remain to be dredged at an estimated cost of \$475,000 to \$500,000. This would give a clear waterway, with a minimum depth of five feet, 50 to 60 feet wide from the Sabine to Corpus Christi, connecting with the waterways system from the Mississippi at Sabine Lake.

The future of the canal from Corpus Christi is yet in doubt as far as Brownsville, but a survey and examination is contemplated from Corpus Christi Bay to some point in Baffin's Bay abreast of Riviera. Its carrying out, however, is problematical, and hangs a great deal on the improvements which many of the Brownsville residents seek in the Brazos Santiago. If those improvements meet with Federal approval and are made, the chances are that there will be no canal dug from Corpus Christi to Brownsville. The mileage of the present canal is as follows: Galveston to Brazos River, 43; Brazos River to Matagorda Bay, 45; Matagorda Bay to Port O'Connor, 30; Port O'Connor to Aransas Pass, 60; Aransas Pass to Corpus Christi, 22; total, 200 miles.

It is navigable for vessels drawing close to five feet of water and not too great a beam. It is especially adapted for the use of barges of light draft with large cargo-carrying capacities. Now that the canal is finished, Colonel Riche's office is about to issue a set of rules and regulations to govern canal navigation. A limit of seven to eight miles an hour in speed will probably be placed on vessels using the canal. Regulations will also be drawn up governing the distance which vessels must keep from each other in using the canal.

No story of the Intercoastal Canal would be complete without a brief mention of the work done by the Interstate Inland Waterways League in securing from Congress appropriations and in arousing public sentiment in favor of the

canal. C. S. E. Holland, president of the League, gives an interesting interview in connection with the history of the canal and its construction. After telling of the calling of convention at Victoria in 1905, following an interview for the Galveston News, he said:

"At this convention, which was attended by such men as Congressman George Burgess, John Garner, John Moore, Hon. Walter Q. Gresham, Hon. R. M. Johnston, and, in fact, a host of the most prominent men of the State, the Interstate Inland Waterways League was organized. I was elected president, and a full set of executive committeemen were elected, comprising the stalwart business men of the coast section of Texas. The following year a rousing convention was held at Lake Charles, La., and then a joint executive committee of the two States were elected and the work pushed farther.

"At the first session of Congress after the Victoria convention an appropriation for one section in Texas—the section from Aransas Pass to Matagorda Bay, including the Guadalupe River—received an appropriation, after a most strenuous effort on the part of Congressman Burgess, after an unfavorable report had been sent in by the Board of Engineers of the United States Army. This report he succeeded in getting referred back to the Board of Engineers, and a subcommittee from the National Congress Rivers and Harbors Committee was appointed to argue the matter with the engineers, which resulted in a favorable report and an appropriation by Congress. This was the entering wedge made. Now there remains only two sections to be provided for to complete the entire canal from the Mississippi to the Rio Grande, and the hearing at Beaumont last week will undoubtedly bring a favorable report and appropriation for that section.

"The work of the executive committee of the Interstate Inland Waterways League has been untiring and everlasting, and a complete history of the work and what each one performed would take pages, but never has a member hesitated to do his part or what he was requested to do. Every year finds a delegation of from 25 to 50 ardent supporters of the Intercoastal Canal in Washington, and with the aid of our every-ready and willing Congressman we will soon accomplish the work laid out by the executive committee. Never has there been a bill to pass Congress for waterways that the Intercoastal Canal has not been represented since the organization at Victoria."

Oklahoma Glass Industry.

Mr. A. G. D. Carney, secretary-treasurer of the Tulsa Glass Co. of Tulsa, Okla., referring to a recent article on the glass industry in Oklahoma published in the MANUFACTURERS RECORD, in which his company was described as making jelly glasses, calls attention to the fact that it makes lamp chimneys, lantern globes, gas globes, water bottles and soda tumblers. Mr. Carney states also that the United Sash & Door Co. of Ponca City, Okla., makes window glass.

Blackwell (Okla.) Gas Field.

[Special Dispatch to Manufacturers Record.]
Commercial Club,
Blackwell, Okla., June 9.

The Blackwell gas field is now producing 100,000,000 cubic feet of gas per day. It has an inexhaustible supply, and Blackwell offers three-cent gas, free sites and liberal cash bonuses to legitimate factories that are seeking location in the West. B. W. JONES, Secretary.

MISSOURI'S TOBACCO INDUSTRY.

(Its Products Had a Value of About \$35,000,000 in 1912.)

Bureau of Labor Statistics,

Jefferson City, Mo., June 5.

Missouri broke the world's record for the quantity of plug tobacco its factories produced in 1912, leading all States with a total output of 62,048,170 pounds, worth, at 50 cents a pound retail, \$31,024,085. These figures and those which follow appear in a bulletin by Commissioner John T. Fitzpatrick of the Bureau of Labor Statistics to show the standing of and to advertise Missouri as a tobacco-manufacturing State.

The information given in Commissioner Fitzpatrick's bulletin indicated that Missouri also continues to forge ahead as a tobacco grower. In cigar manufacturing the State also holds high rank, St. Louis, Kansas City, Moberly, Joplin, Carthage, Springfield, Sedalia, Jefferson City, St. Joseph, Cape Girardeau and other cities and towns having in 1912 turned out 67,898,678 cigars, worth, wholesale, about \$2,850,000.

All plug tobacco turned out annually by Missouri comes from St. Louis, but the other cities share equal honors for the large output of cigars and smoking and twist tobacco. While cigar smoking is on the increase, comparing the production of 1910 and 1911 with that of 1912, cigarette smoking seems to be waning, probably because of the crusade against this habit. The figures which follow were gathered for the Bureau of Labor Statistics by Supervisor of Statistics A. T. Edmonston. The cigarette output of Missouri for 1912 was 211,695, with three factories in operation. In 1910, when seven factories operated, the production was 523,390. In 1911 four factories produced only 90,500 "tacks." Of cigars, 639 establishments of the State in 1912 turned out 67,898,678; in 1911, 578 establishments, 65,978,229, and in 1910, 616 establishments, 66,878,488.

The use of snuff is also on the wane if the 1912 production of Missouri's manufacturers can be accepted as a criterion. The 1910 output was 5139 pounds; 1911, 10,498 pounds, and 1912 only 3812 pounds.

Of plug cut, the variety of manufactured tobacco for which Missouri shines, the 1910 production was 59,863,755 pounds, and for 1911 58,350,251 pounds, as compared to the record, 62,048,170 pounds for 1912.

Of smoking tobacco, Missouri for 1912 is credited with an output of 3,489,600 pounds, compared to 6,072,531 pounds in 1911 and 7,432,904 pounds in 1910, the decrease being more than equaled by the gain in plug cut and cigars for last year.

The Missouri varieties of plug cut are known and used the world over, being sold in stores of New Zealand, Australia, Russia, Turkey, Japan, China and in more remote countries. The tobacco industry of Missouri helps a long way to meet the expense of a billion-dollar Government, \$6,979,669 having poured into the United States treasury from this source by this State alone as a revenue tax in 1912.

When it comes to tobacco growing, Missouri in 1912 produced 6,000,000 pounds, worth \$720,000, Platte, Chariton, Schuyler, Cooper, Boone, Buchanan and Clinton counties being the chief sources of the annual yield, which was more than enough to make all the cigars, cigarettes and smoking tobacco turned out by the State in 1912. For plug cut, twist and snuff Missouri still has to draw on Kentucky, Tennessee and the Virginias for raw tobacco.

There is still room for more tobacco

growing in Missouri, with St. Louis, the chief market and manufacturing center of the world, close at hand. In 1912 only 6000 acres were given to this commodity in Missouri, but the yield averaged 1000 pounds to the acre, which, at 12 cents a pound, meant \$1200 an acre.

The 1911 tobacco crop of Missouri was 4,800,000 pounds, the value \$576,000, and the yield 8000 pounds per acre.

Lake Mattamuskeet Drainage.

John P. Kerr, secretary of the Board of Drainage Commissioners, Asheville, N. C., wires the MANUFACTURERS RECORD as follows:

"Five hundred thousand dollars Mattamuskeet drainage bonds have been sold to the New First National Bank of Columbus, O., at par; contract for erecting the pumps on this work has been let to the Morris Machine Works of Baldwinville, N. Y. The dredging contract has been let to A. V. Wills & Sons, Pittsfield, Ill."

This announcement means that the drainage of Mattamuskeet Lake in Hyde county, North Carolina, is assured, making 120,000 acres of land to be available for agricultural development. About 50,000 acres comprise the lake bottom, owned by the Southern Land Reclamation Co. of Asheville; 40,000 acres are covered by swampy ground and 30,000 acres are in cultivation, but subject to overflow in rainy seasons. The construction required includes outfall canal, 60 feet wide on the bottom, 70 feet wide on the top and from 8 to 9 feet deep; between 80 and 90 miles of canals, not including the laterals necessary before the land is properly prepared for farming; 3,500,000 cubic yards of earth excavation; pumping plant with capacity of 2000 feet of water per minute.

The entire undertaking is based upon surveys and estimates of the drainage department of the Government, final plans for canals having been approved by that department.

For a Furniture Factory.

Chamber of Commerce,
Monroe, La., June 2.

Editor Manufacturers Record:

Our city is a most desirable point for a first-class furniture factory by virtue of the fact that we are located in the heart of one of the finest timber belts to be found throughout the South. In addition to the above, we enjoy splendid railway facilities, which makes this point an ideal shipping point. Our city is located on the banks of the Ouachita River, which is navigable some nine months in each year, and the Government is at present spending large sums of money putting in locks and dams which make this river navigable the year round, after which, of course we can enjoy what is called water rates. LUTHER ELLISON, Secretary.

New Orleans to Muskogee.

According to a report from New Orleans, La., a steamboat line will soon be established to run between that city and Muskogee, Okla., via the Mississippi and Arkansas rivers. It appears that this service is the result of efforts made by business men of Muskogee to obtain water transportation facilities. The steamer City of Muskogee, of 150 tons, will be put on the route, and, in addition to freight, can carry 140 passengers. Among the important points on the route are Fort Smith, Little Rock and Pine Bluff, Ark.

Developing Tennessee Zinc.

The American Zinc Co., Knoxville, Tenn., expects to complete this month its big plant near Mascot, in East Tennessee.

It is developing extensive deposits of zinc, and its plant is a \$600,000 enterprise, which will have a daily capacity of 1200 tons of ore, affording employment for about 300 men. Its plant for concentrating the ore before it is shipped to Illinois smelters is of steel and concrete construction. In connection with its developments the company has established an industrial city which is estimated to contain about 2500 inhabitants.

The South in England.

In forwarding to the MANUFACTURERS RECORD advertisements published in English papers of farm lands in Virginia and North Carolina, United States Consul Albert W. Swalm of Southampton, England, writes:

"Knowing that about 2600 of the agricultural folk were being served with Virginia and North Carolina land literature, I thought it would be a good thing to call their attention to the same, and wrote the attached advertisement and had it run in a six-inch space in the Salisbury Times for two weeks. If I were more personally interested in these States by ownership, I should adopt a judicious line of similar advertising and get into the homes of the class I wanted to reach in that way. Canada does it, and Canada gets the crowd. It is the only way that these good Commonwealths can get into full touch with home-seeking people—advertise by honest circular and the statement of fact in clear way in local columns."

Two Hydro-Electric Companies.

The Gauley Power Co. and the Miners Light & Power Co., each with an authorized capital of \$250,000, have been incorporated by J. H. Gaines, A. B. Koontz, G. G. Todd, F. R. Hurlbutt and F. R. Kemp, all of Charleston, W. Va. No authoritative statement of the companies' plans has been made, but the purposes of the Gauley corporation are outlined in its notice of application to be made to the Public Service Commission of West Virginia for approval of plans for constructing five dams for hydro-electric power. These dams are to be located at Woods ferry and Carnifax ferry, on the Gauley river, and near Carnifax river, Shawvers bridge and Riverside, on Meadow river.

Arkansas' Potentialities.

The Arkansas Gazette of Little Rock published with its issue of June 6 a publicity section, presenting in a graphic way facts about Little Rock and Arkansas which should be considered by homeseekers and investors. The Gazette, estimating upon recent progress, looks to an industrial production in Little Rock by 1919 having a value of from \$23,000,000 to \$25,000,000. It shows that the resources of the State now supports in comfort 1,000,000 persons, and that its soil is capable of supporting 8,000,000 persons. The value of Arkansas products increased between 1889 and 1909 from \$139,484,324 to \$273,158,101, and are expected to have by 1919 an annual value of \$546,316,202.

Mississippi Cottonseed Crushers.

The Mississippi Cottonseed Crushers' Association will hold its second annual convention at Gulfport July 15 and 16. Arrangements are now being made by the citizens of Gulfport and a committee from the association looking to the comfort and entertainment of everyone attending the meeting. G. W. Covington is president of the association, and the executive committee includes J. H. Turbeville, H. C. Forrester, E. M. Durham, J. B. Perry, J. W. McRaven and G. B. Alexander.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Further details of highway undertakings and bond issues mentioned below are given under the headings Construction Department and New Securities, published elsewhere in this issue.]

Bonds Voted.

Brandon, Miss.—Rankin county will issue \$75,000 bonds for road construction.

Clarksville, Tex.—Clarksville precinct of Red River county voted \$200,000 bonds for road construction.

Gretna, La.—Road districts Nos. 1 and 2 of Jefferson parish voted \$200,000 bonds for road improvements.

Mount Vernon, Mo.—Lawrence county voted \$50,000 bonds for road construction.

Rocky Mount, N. C.—City voted \$135,000 bonds for paving, etc.

Bonds to Be Voted.

Belton, Tex.—City votes July 2 on \$50,000 bonds for street paving.

Corpus Christi, Tex.—Nueces county votes July 19 on \$500,000 bonds to construct about 200 miles of road.

Mooresville, N. C.—Town votes July 8 on \$15,000 bonds for street improvements.

Oxford, N. C.—City votes June 14 on \$10,000 bonds for street and sidewalk improvements.

Paducah, Tex.—Commissioners' Precinct No. 1 votes June 28 on \$50,000 road-bond issue.

Robersonville, N. C.—Robersonville township voted \$50,000 bonds for road improvements.

San Antonio, Tex.—City votes in July on \$3,450,000 bonds for street improvements, etc.

Snow Hill, N. C.—Greene county will vote on \$20,000 bonds for road improvements.

Tampa, Fla.—Hillsboro county votes July 29 on \$1,000,000 bonds for paving roads with brick; about 67½ miles to be improved.

Tarboro, N. C.—Edgecombe county votes July 15 on \$200,000 bonds to construct roads and bridges.

Temple, Tex.—City votes July 2 on \$50,000 bonds for street paving.

Contracts Awarded.

Anniston, Ala.—Calhoun county awarded contract to construct about five miles of road.

Baltimore, Md.—City awarded contract at \$68,200 for street paving; 60,000 cubic yards excavation; 4600 linear feet sheet asphalt, 40 feet wide; 9300 feet curb.

Baltimore, Md.—City awarded contracts at \$33,965.25 for street paving.

Cumberland, Md.—City awarded contract at \$14,270.95 for street paving.

Forest, Miss.—Scott county awarded contract at \$18,807 to construct four and three-quarters miles gravel road.

McComb, Miss.—City awarded contract for 2000 yards concrete sidewalk.

Meridian, Miss.—Good-Roads Commission awarded contract at \$104,367 to construct roads; 20.27 miles novaculite surfacing and 15.48 miles sand and clay.

Montgomery, Ala.—City awarded contract at \$5435 to pave Carter Hill road; also awarded contract at \$2700 to pave roadway from Second to Fifth avenue.

Rockville, Md.—George B. Millin, Washington, D. C., has contract to pike five miles of Rockville-Georgetown road.

Contracts to Be Awarded.

Baltimore, Md.—City receives bids until June 18 to grade, curb and pave with bituminous concrete; 9520 square yards.

Baltimore, Md.—City receives bids un-

til June 18 to grade, curb and pave various streets; 42,120 square yards.

Grenada, Miss.—City receives bids until July 8 to construct 14,000 square yards vitrified brick, wood block, concrete and bitulithic pavement, and 4000 linear feet concrete curb, etc.

Hartselle, Ala.—City asks bids until June 13 for construction of about 22,000 square yards tarvia concrete, 7600 linear feet concrete combined curb and gutter, 1700 linear feet concrete curb and gutter and 1000 square yards concrete sidewalks.

Knoxville, Tenn.—City will pave and otherwise improve District No. 98; 1680 square yards paving, 700 cubic yards excavation, 1072 linear feet concrete curb, etc.

Lenoir, N. C.—Caldwell county will construct road; \$1000 appropriated.

Mebane, N. C.—Orange county asks bids until July 7 for clearing, grading and draining nine and two-thirds miles highway.

Miami, Fla.—Dade county is preparing to expend \$100,000 for road improvements.

New Decatur, Ala.—City receives bids until June 16 to grade, curb, gutter and pave certain streets with asphalt; 17,000 linear feet concrete curb and gutter; foundations and surfacing 85,000 square yards of pavement.

Poplar Bluff, Mo.—City receives bids until June 30 for 36,201 square yards vitrified brick pavement; 19,996 feet curb and gutter; 1969 feet headers, etc.

Raleigh, Miss.—Smith county receives bids until June 16 for construction of 15.2 miles sand-clay road in Beat 1.

Savannah, Ga.—City invites bids on 17,000 square yards creosoted wood block or asphalt block paving.

Tyler, Tex.—Road District No. 1 of Smith county will construct sand-clay roads; amount available \$75,000.

Wise, Va.—Wise county asks bids until June 24 for grading of 15.8 miles road in four sections; also macadamizing 44.3 miles, seven sections.

LOUISIANA HIGHWAYS.

Improved Roads for the Vicinity of New Orleans.

[Special Cor. Manufacturers Record.]

New Orleans, La., June 4.

A very important and significant move has just been made in the direction of good road building in this vicinity. An issue of \$200,000 worth of bonds was carried by the voters and property-holders of Jefferson parish by an almost unanimous vote at an election held Monday of this week. They provide for two stretches of road, one on the west bank of the Mississippi and the other on the east bank. The one on the east bank is to extend from the city limits to the town of Kenner, some 10 miles up the river, where there is a considerable suburban farm and town development being worked out by an Illinois syndicate, and between which place and New Orleans an interurban trolley line is being promoted.

The other stretch is on the west side of the river, starting from Gretna and extending to the St. Charles parish line, about one mile north of Waggaman, La. A two-and-one-half-mill tax fund will be immediately available for the construction of the road. The bonds are declared to be readily salable to various local banks, and the work is expected to begin without delay.

Also on Thursday of last week the combined Police Jury and Grand Jury of St. Charles parish responded to the efforts of several of the large interested land-owners and made a personal investigation of the new road from Des Allemandes to

Boutte, most of which was made and presented to the parish by the builders of Paradis. The joint conference resulted in an unanimous recommendation by the members present for a special good-roads bond election, in order that the road may be continued from St. Charles parish line, connecting with the Jefferson parish road from Gretna to Waggaman, and giving a continuous good road from Gretna, opposite New Orleans, to Des Allemandes and beyond. For an extension of the road beyond Des Allemandes the parishes of Lafourche and Terrebonne are said to be in entire accord with the proposition to continue the road through the towns of Raceland and Lockport, and terminating in the city of Houma, the county-seat of Terrebonne, which is a very bright and prosperous little city of 7500 people. On the completion of this stretch of road, the distance by road from Houma to New Orleans will be less than 65 miles. At the present time the only way by which automobile and other conveyances can travel between Houma and New Orleans is to go by way of Bayou Lafourche to Donaldsonville, and thence down the Mississippi River, a distance of more than 125 miles. The new road will be a convenient highway for more than 50,000 people in Terrebonne parish and along the line.

This indication of the intention of the people of this section to inaugurate good roads is evidence that the importance of having good roads is now thoroughly recognized, and that the work will go on until New Orleans has been provided with a network of good roads radiating in every direction. Not only would this be of very great advantage to the agricultural interests in the section, as good roads construction has demonstrated everywhere that increased values have immediately followed, but it will be of very great advantage in increasing the popularity of New Orleans as a winter residence for tourists. At the present time it is a very common practice for visitors to New Orleans who may be on their way to the Pacific coast to spend a few weeks in New Orleans, but ship their automobiles direct through to California. With long stretches of good roads leading from New Orleans to the many beautiful and romantic cities, lakes, bayous and plantations for which lower Louisiana is famous, there will be ample opportunity for much motor riding, and the temptation to spend a far greater length of time in this vicinity than has been the custom heretofore.

ALBERT PHENIX.

Missouri Dragged Roads.

State Highway Commissioner Frank W. Buffum of Missouri has laid down as requisites for obtaining money from the fund of \$225,000 appropriated by the Legislature for the dragging of inter-county-seat roads; that the roads must be 40 feet wide, must be graded and ditched and provided with concrete or other permanent culverts. It is estimated that the expenditure for inter-county-seat roads will lead to a grading of 25,000 miles of roads in the State.

No Dullness There.

The Houston Coal Co., with offices in the Union Trust Building, Cincinnati, O., writes:

"At the present time business with us is so good that it would embarrass us to have any further demands or inquiries made upon us for coal for the next six or eight months."

From other coal companies throughout the South comes somewhat similar optimistic reports as to present conditions.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

MIDLAND VALLEY PLANS.

\$15,000,000 Loan to Insure Extensions and Increase of Facilities.
[Special Cor. Manufacturers' Record.]

Muskogee, Okla., June 5.

When on May 19 the Midland Valley Railroad filed for record in the office of the Secretary of State and with the Register of Deeds of Muskogee county in this city a mortgage for \$15,000,000 was consummated a deal which will in the end put this road of 373 miles in first-class physical condition, give it improved freight and passenger equipment and insure its extension to Shreveport, La., and thence by traffic agreement into New Orleans. That the terminus now at Wichita, Kans., will be pushed farther northwest has also been practically determined upon, but whether this extension will have Denver, Col., as its objective point or leaving that city to the west, penetrating the great wheat belt of the farther north, has not yet been definitely decided.

For the past few years the Midland has not been able to meet its operating expenses and interest charges, and the owners concluded to refinance the line, taking a second mortgage for about 65 per cent. of their investment, charging 35 per cent. off and under a 5 per cent. bond issue rehabilitate the road and with reduced overhead charges put it on a paying basis and give its securities a market value they have not heretofore possessed. The bond issue was handled by Harris, Forbes & Co. of New York, and the first \$5,000,000 will go toward wiping out all outstanding obligations and the remainder will then go into betterments and equipment for the line. After the rehabilitation process has been carried out the additional \$10,000,000 will be used in the extension work before referred to.

The headquarters, offices and shops of the Midland are in this city, the officers of the company being C. E. Ingersoll of Philadelphia, president; A. W. Lefebvre, general manager; J. W. McLoud, general solicitor.

At the present time Wichita, Kans., is the northwest and Fort Smith, Ark., the southeast terminus, with a branch or extension from the latter place to Hoya, Ark.

CLARENCE B. DOUGLAS.

OKLAHOMA ELECTRIC LINE.

Interurban Railway Planned from Muskogee to Okmulgee, Shawnee and Oklahoma City.

[Special Cor. Manufacturers' Record.]

Muskogee, Okla., June 5.

For the past two years, at intervals, rumors have gained currency that an electric line was contemplated between Muskogee and Oklahoma City, the projectors being officials of the Oklahoma City Traction Co. and the owners of the electric lines of this city. A prominent official of the Muskogee Electric Traction Co. outlines the route of the new road as follows:

From Muskogee west to Okmulgee on an air line, connecting with the electric system of that city; thence to Shawnee to a connection with the Shawnee and Tecumseh local and interurban. From Shawnee to Oklahoma City, connecting at that place with the local system and the interurban line operating to El Reno. At Muskogee the line will connect with the M. E. T. interurban system to Fort Gibson, on the main line of the Missouri

Pacific. At a point a few miles east of Okmulgee the plan is to run a branch to Sapulpa, thence to Tulsa, utilizing a short interurban line now in operation between these points, as well as the local systems of the places named. The main east and west line will be brought to the highest standard of efficiency, and it is hoped to make it the popular short route between Eastern Oklahoma and the State Capital.

The new road will tap the Missouri Pacific and Missouri, Kansas & Texas, the Frisco, the Santa Fe and the Rock Island North and South main lines, and, according to the promoters, become one of the best roads in the State. Actively interested in the proposition are Messrs. John W. Shartel of the Oklahoma City Electric system, and R. D. Long of the Muskogee Electric Traction Co.

CLARENCE B. DOUGLAS.

TO BUILD INTERURBAN.

Guadalupe Valley Traction Co. Chartered for Line from Austin to San Antonio, Tex.

The Guadalupe Valley Railroad Co., the Central Texas Traction Co. and the Guadalupe Water Power Co. announce that they contemplate construction, and that all information or inquiries pertaining to it should be forwarded to Seguin, Tex., where they maintain offices. A chief engineer and other officers have been selected, but will not be announced until July.

Pertinent to this statement is the report from Austin, Tex., of the charter of the Guadalupe Valley Traction Co., with principal office at Seguin; capital \$100,000. It proposes to build, maintain and operate railways in the cities of Austin and San Antonio, with offices therein, and through intervening towns and villages, and may also sell motive power. Motive power may be either electric, gas or gasoline, denatured alcohol or naphtha.

The first board of directors are W. B. Dunlap and Walter J. Crawford of Beaumont, Tex.; E. W. Brown of Orange, Tex.; J. M. Abbott and J. M. Abbott, Jr., of Seguin, Tex.

PUBLIC SERVICE PLANS.

Interurban Railways to Be Built in Addition to Power and Light Plants.

The Public Service Co. of Oklahoma, with authorized capital of \$3,000,000, according to a report from Tulsa, Okla., was recently incorporated there and will have its general offices in that city. It is further stated that he company has acquired the light and power plant at Tulsa, and owns similar properties at Guthrie, Vinita, Atoka, Lehigh, Coalgate and Chickasha, Okla., and is negotiating to acquire the plant at Lawton.

Fred. W. Insull of Oklahoma City is president; Martin J. Insull of Chicago, vice-president, the other directors being Samuel Insull, also of Chicago; Paul M. Galloway of Tulsa and Galen Grow of Guthrie, Okla.

It is said that the company proposes to engage in the construction and operation of interurban railways, besides building and running power and light plants. Plans for extensive construction have been agreed upon. The first railway work is expected to be done in and around Lawton, Okla.

BIG BRIDGE CONTRACT.

Work to Start Immediately Upon the Rock Island Line's Span at Memphis.

Contract has been awarded by the Arkansas & Memphis Railway Bridge & Terminal Co. (a Rock Island lines proposition) to the Union Bridge & Construc-

tion Co. of Kansas City for the construction of the substructure of its proposed bridge over the Mississippi River at Memphis, Tenn., the value of the contract being stated at about \$1,250,000. The finished bridge will cost about \$4,000,000. Construction of the substructure will include the sinking of five pneumatic piers, several smaller piers for the approaches and all shore protection. Work thereon is to start immediately. The bridge will be located 200 feet north of the Frisco system bridge at Memphis, and in its entirety will be about 6000 feet long. Modjeska & Angier of Chicago are the engineers. C. A. Morse of that city is chief engineer of the Rock Island lines. K. G. Williams, 387 E. Calhoun avenue, Memphis, Tenn., is engineer in charge.

Receiver Named for a Railroad.

According to a report from Monroe, La., the United States Court there has appointed James M. Parker to be receiver for the Arkansas, Louisiana & Gulf Railway, upon application being made on behalf of bondholders. There are about \$1,230,000 of bonds outstanding.

This railroad is 56 miles long from Monroe, La., to Hamburg, Ark., it being proposed to continue construction northward 87 miles more to Pine Bluff, Ark., to connect with the St. Louis Southwestern Railway. From Rolfe Junction, nine miles south of Hamburg, there is a branch of five miles to Crossett, Ark., connecting there with the Rock Island line. The road owns five locomotives and 124 cars. It was chartered in 1906, and is controlled by the Southern Development Co.

Among the principal officers of the railroad are Alfred Cowles of Chicago, president; Wm. A. Otis, vice-president and treasurer; C. E. Titus, secretary, both of Colorado Springs, Col.; J. M. Parker (who has just been named as receiver), general manager and assistant treasurer. The directors include Irving Howbert of Colorado Springs, J. H. Schaefer and J. H. Pryor, Sr., of Hamburg, and Robert G. Atkinson of Pine Bluff, besides Messrs. Cowles, Otis and Parker.

Betterments at Galveston.

The Galveston, Houston & Henderson Railroad Co. has authorized the construction of 12 miles more of side-tracks on Galveston Island, of which 10 miles will be at the west end and the other two at Texas City Junction. Accommodation will be provided in the west end yards for 55,000 more bales of cotton than can now be handled there, and a new yard office will be erected. It is further stated concerning these improvements that the company will be able to handle 1100 more cars at its Galveston terminals than it can at present. Capacity at Texas City Junction will be increased by about 300 cars. Hanson's Sons, Inc., are contractors for the grading.

In addition to these betterments, which are expected to be finished in time for handling this season's cotton crop, the company will also lay several miles of heavy steel rails between Virginia Point and La Marque, which will complete the laying of 85-pound rails from Galveston to Harrisburg, Tex. Grading for this work is being done by the company's forces.

Rails, New Equipment, Etc.

Chattanooga Railway & Light Co., says a market report, is getting bids on electric cars.

Carolina, Clinchfield & Ohio Railway is also reported getting prices to purchase from 50 to 100 coal cars.

Tidewater Power Co., Wilmington, N. C., says a report from there, has just

completed 3 electric railway car bodies for its own use. They are of large dimensions, seating 68 passengers.

Atlantic Coast Line is expected to purchase 100 flat cars and 25 cabooses.

Pennsylvania Railroad, according to a report from New York, has sold there \$19,700,000 of 4½ per cent. equipment trust notes to Kuhn, Loeb & Co., the security therefor being, presumably, a large amount of equipment ordered during the last two or three months, and previously reported.

Southern Railway, says a report from New York, is about to purchase 15 Mikado locomotives, 10 Pacific locomotives and 400 hopper cars, the later of 50 tons capacity.

Birmingham Railway, Light & Power Co., it is reported, will purchase 20 electric street cars.

Southern Car Co., High Point, N. C., is reported to have orders for 4 electric street cars for the Charlotte (N. C.) Street Railway, and also for 2 electric street cars for the Athens (Ga.) Railway & Electric Co.

St. Louis Southwestern Railway is reported to have ordered 150 tons of structural steel for turntables from the American Bridge Co., New York.

Dallas (Tex.) Electric Corporation, says a report, has ordered 14 electric street cars from the St. Louis Car Co., the order being placed through the Wendell & MacDuffie Company.

Trinity River Lumber Co. has ordered a mogul locomotive from Baldwin's.

American Refrigerator Transit Co. has had \$2,150,000 of 5 per cent. notes approved by the Missouri Public Service Commission.

"Safety First" the Rule.

The Pennsylvania Railroad Co. has issued a pamphlet entitled "Safety Hints and Suggestions for the Prevention of Personal Injury Accidents." Officers and employees will be supplied with copies of the book, 100,000 of them having been printed. It is said that probably 70 per cent. of such accidents which occurred on the Pennsylvania during 1912 could have been prevented if employees had exercised special caution. The general manager has made a personal appeal for the co-operation of every employee to prevent accidents, in the course of which he says: "Safety in railroad operation is not a question of safeguards, but of intelligent caution constantly exercised. The ultimate aim of the safety work is to develop in each employee a sense of personal responsibility, not only in taking measures for his own safety, but for that of his fellow-employee as well." But in this connection it is especially observed in the pamphlet that "the safety of passengers is the first consideration."

May Use Electric Power.

A report from Jacksonville says that the Florida East Coast Railway Co. is preparing to install electric motive power on its line from Jacksonville to St. Augustine and towns on the seacoast nearby, and quotes President J. R. Parrott as saying that the necessary construction will soon begin. It is further stated that the City Council of Mayport, at the mouth of the St. John's River, has granted the company a franchise to occupy its streets with an electric railway.

Interest Revived in Old Plan.

J. A. Quinn, industrial agent, Pryor, Okla., says that the proposition to build an interurban railway from there to Salina, Okla., has revived interest in the old plans of the Cherokee Belt & Interurban Railway Co., which projected a line from

Skiatook to Pryor. This was surveyed and staked four years ago, but no grading was done. It is intimated that the plan may be again taken up and pushed through if the various towns to be benefited will co-operate upon it. This line would be 55 miles long, crossing the Verdigris River near Claremore and the Grand River near Salina. Mr. Quinn alludes to the encouraging outlook as to the crops and the oil and gas industry, and says that a more opportune time for the construction of the road could not be chosen.

Licking River Railroad.

The Licking River Railroad Co. has filed notice at Frankfort, Ky., says a report from that city, to the effect that it will give up business. It is a narrow-gauge line 32½ miles long from Salt Lick, Ky., to Yale, Salt Springs, Devil Creek and Arnett, Ky., and is located in a lumbering region, connecting at several points with the Yale Lumber Co.'s railroad. Salt Lick is on the Chesapeake & Ohio Railway. J. H. Fulmer, Jr., is president; J. A. Roper, treasurer, and M. A. Weber, auditor, all at Mishawaka, Ind.; W. W. Hubbard of Indianapolis, Ind., vice-president; H. G. Niles of South Bend, Ind., secretary, and J. Q. Johnson of Yale, Ky., general manager.

To Encourage Interurban Lines.

The Atlanta (Ga.) Chamber of Commerce, according to a report from that city, has appointed a special committee to encourage the construction of interurban railways out of Atlanta, assisting in gathering necessary information for companies projecting such work, and in other ways aiding in promoting the enterprises. The committee is composed of Hollins N. Randolph, chairman; M. R. Wilkinson, Frederic J. Paxton, P. S. Arkwright and Fred. Lewis. Wilmer L. Moore is president of the Chamber of Commerce.

Timber-Treating Plant.

The Baltimore & Ohio Railroad Co. has completed its timber-treating plant at Green Springs, W. Va., and will treat with preservative chemicals large numbers of railroad ties and other wood there every year. The plant occupies about 60 acres of land, and is near a large timber region on the South Branch of the Potomac River. Experience has shown that the average life of ties in track can, by the use of preservative treatment, be greatly lengthened at comparatively small expense.

Automatic Block Signals.

The Queen & Crescent Route, says a report from Birmingham, Ala., will install automatic block signals on 38 miles of line from Moundville to Livingston, thus completing the equipment of its road with signals. The cost of the work will be \$39,600.

For Little Rock.

An attractive means of setting forth the advantages of a community and its vicinity is the pamphlet issued by the Board of Trade of Little Rock, Ark., giving in succinct form a mass of valuable information about the city and about movements in the State, such as drainage and other reclamation work bearing directly upon the progress and prosperity of the State's metropolis. The Board of Trade is also circulating an artistically illustrated pamphlet dealing with the resources of the separate counties of the State and a compendium of its mineral resources prepared by Prof. A. H. Perdue of the University of Arkansas.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

International Cotton Mills.

The refinancing of the International Cotton Mills Corporation, under the modified plan announced several months ago, has been completed, Blair & Co. of New York and Lee, Higginson & Co. of Boston being the bankers. By the new plan the International Cotton Mills, the new company, sells \$4,000,000 five-year 6 per cent. notes, \$3,000,000 preferred and \$3,000,000 common stock, the balance of its common stock (\$5,800,000) being reserved for exchange for stock of the old International company. The J. Spencer Turner Company of New York, selling company of the International and constituent companies, is (under the plan) supplied with \$800,000 additional cash capital. All common stock of the Turner company is owned by the International company, which also owns the stock of the Mt. Vernon-Woodberry Cotton Duck Co., financed by the Turner company. The Bay State Cotton Corporation and the Boston Yarn Co., both of Massachusetts, formerly constituents of the old company, also pass to the new International company. The entire transaction involves approximately \$8,000,000 new cash capital, being supplied to the several companies. S. Davies Warfield, president of the Continental Trust Co., Baltimore, conducted the negotiations with the bankers on behalf of the International company.

The Cotton Movement.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight during the first nine months of the present season was 13,242,969 bales, a decrease under the same period last year of 2,159,111 bales. The exports were 8,097,687 bales, a decrease of 1,984,659 bales. The takings were, by Northern spinners, 2,240,681 bales, a decrease of 366,924 bales; by Southern spinners, 2,604,798 bales, an increase of 265,939 bales. The amount of cotton brought into sight for the 279 days of the present season was 13,273,895 bales, a decrease of 2,166,965 bales; the exports were 8,153,410 bales, a decrease of 1,972,765 bales. The takings were, by Northern spinners, 2,254,109 bales, a decrease of 372,084 bales; by Southern spinners, 2,360,414 bales, an increase of 259,532 bales.

A \$75,000 Mill Company.

The Dayton Hosiery Mill Co., Dayton, Tenn., will be organized with a capital stock of \$75,000 to establish an electrically-driven plant, the machinery for which will cost \$30,000. Garnett Andrews of Chattanooga, Tenn., will be manager.

Textile Notes.

Cornelius Haynie of Oklahoma City is reported as to build a \$60,000 hosiery mill at Wichita Falls, Tex.

The Eva Jane Mill, Sylacauga, Ala., is progressing with construction and the plant is expected to be complete in October. This company's main structure is 445 feet long by 138 feet wide, and will

contain 40,000 spindles, 1200 looms, steam power equipment, etc., for manufacturing cotton cloth. This enterprise is owned by the Avondale Mills of Birmingham. The various other details have heretofore been stated.

MINING

The Cushing Oil Field.

Commercial Club,

Cushing, Okla., June 4.

Editor Manufacturers Record:

I was very much interested in your article in May 29th MANUFACTURERS RECORD on "Oklahoma's Amazing Industrial Development," but note that under your list of refineries now in operation and under construction you gave Cushing with C. B. Shaffer refinery of 3000 barrels and the Brown Refining Co. with 500 barrels. I desire to say the Brown Refining Co. was the Jayne Oil & Gas Co., and instead of being 500 barrels, they had started to construct a 700-barrel still, but had doubled and now have two 700-barrel stills, while J. S. Cosdon and others have bought in the company and are doubling that capacity, or making four stills of 700 barrels capacity each, making a 2800-barrel plant. George A. Todd, manager of Ponca City plant; Walter Evans and O. G. Lee of Kansas City and others have recently organized the Cushing Refining Co. and are now contracting a 2610-barrel plant here. They have most of the material on the ground. Two other refining companies have been looking over the location, and will probably locate here soon.

The city is letting a \$30,000 school building contract, and they have just gotten several miles of water-works extension in the city, and the material is now on the ground and they are constructing a large main to Cimarron River, four miles north of here, from which the city will obtain an abundant supply of excellent water.

A \$30,000 sewer system is also under construction, which will be completed by the time we have a sufficient amount of water in from the river, while the great Cushing oil field, commencing six miles east of here, is now producing about 25,000 barrels of very high-grade oil every day and increasing its production and also in two different directions adding many sections to the extent of the field, with many test wells in every direction from the field being located and drilled. So you see Cushing bids fair to at least be quite an important oil-refining country.

JOHN R. HADLEY, Director.

To Mine Carolina Mica

The Standard Mica Co., Asheville, N. C., has organized for the purpose of developing a 300-acre mica property. It wants prices on blasting powders and other explosives, drills, picks, shovels, barrows, etc. This company was recently incorporated with a capitalization of \$25,000, and its officers are as follows: President and manager, F. A. Sumner; vice-president, B. H. Sumner; secretary, J. B. Anderson.

Demand for Cotton Waste.

Harvey & Harvey, Calle Habana No. 17, Habana, Cuba, write to the MANUFACTURERS RECORD as follows:

"We desire to get in touch with some large manufacturer of cotton waste that we may represent in Cuba, as there is a large sale of this article to the sugar mills in the island, as well as to the railroads, electric-light plants, rope factories, etc. If you know of any good concerns making this article, kindly give them our name or send us theirs."

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Southern Building in May.

The following figures, compiled from reports from representative Southern and Southwestern cities, present a brief summary of building operations in these sections during May. A decrease in the value of operations in Richmond during the month, as compared with May, 1912, is noted, that for new work amounting to \$235,557, while there is an increase in the value of alterations and repairs estimated at \$21,178. For the first five months of the year the total value of improvements authorized is estimated at \$2,310,106. In Charlotte a total of 37 permits was issued for new structures and 7 for improvements, representing a cost of construction of \$123,953. Permits were issued in Winston-Salem to the number of 63, representing a cost of construction of \$164,480. Among the new buildings authorized were 60 dwellings, ranging in cost from a few hundred dollars to \$10,000. The value of buildings for which permits were issued in Greenville, S. C., during the month was estimated at \$70,885, an increase of about \$23,000 as compared with April. A total of 46 permits was issued in Augusta during May for new buildings, representing a cost of construction of \$248,485, and 77 alterations and repairs represent a cost of \$5444. For May, 1912, a total of 58 permits was issued for new buildings, but the cost of construction was only estimated at \$71,985. For the first five months of 1913 the value of operations is estimated at \$583,337, as compared with \$284,145 for the corresponding period last year. In Atlanta permits were issued during the month for construction to cost approximately \$800,000, a decrease as compared with May, 1912, of about \$20,000. A total of 264 permits was issued in Birmingham during May, representing a cost of construction of \$969,227, an increase of nearly \$600,000 as compared with May, 1912. For the first five months of 1913 permits have been issued for construction estimated to cost \$3,946,146, as compared with \$1,461,713 for the corresponding period last year. Permits were issued in Jacksonville during the month to the number of 114, representing a cost of construction of \$254,117. As compared with May, 1912, these figures show an increase of about \$60,000. For the first five months of 1913 the cost of construction authorized is estimated at \$1,984,527. The cost of construction for which permits were issued in Tampa during the month was estimated at \$152,873, as compared with \$96,590 for May, 1912. The aggregate value of operations for the first five months of the year is estimated at \$608,628. A total of 40 permits was issued in Miami during May, representing a cost of construction of \$95,550, while the value of operations in St. Petersburg is estimated at \$50,000. A total of 326 permits was issued in Memphis, representing a cost of construction of \$417,412. For May, 1912, a total of 393 permits was issued, representing a cost of construction of \$684,485. Permits were issued in New Orleans during the month to the number of 198, representing a cost of construction of \$417,000. For the first five months of the year the value of operations is estimated at \$2,042,800, as compared with \$1,007,500 for the corresponding period last year. The cost of construction for which permits were issued in St. Louis during the month was esti-

mated at \$1,392,655, a decrease of \$591,198 as compared with May, 1912. The value of operations in Dallas during May amounts to \$1,107,405, and for the first five months of the year to \$4,224,090. A total of 101 permits was issued in Houston during the month, representing a cost of construction of \$289,560, as compared with \$226,380 for May, 1912. Permits were issued in San Antonio to the number of 238, representing a cost of construction of \$275,156. For the fiscal year ended May 31 a total of 2972 permits was issued, representing a cost of construction of \$2,424,128. Permits issued in Tulsa during the month aggregated 103 and represent a cost of construction of \$202,240. In the District of Columbia a total of 445 permits was issued during May, and the cost of construction was estimated at \$1,206,599. The cost of construction for which permits were issued in Baltimore during the month, including alterations and repairs, was estimated at \$2,120,626. These figures represent the largest month's work in building operations for several years.

Alabama Forest Products.

The Geological Survey of Alabama, Dr. Eugene A. Smith, State geologist, University, Ala., has just issued Part I of the Economic Botany of Alabama, a geographical report, including descriptions of the natural divisions of the State, their forests and forest industries, by Roland M. Harper, Ph.D., who has been gathering the material for this report since 1905 in every county in the State. It is a booklet of 228 pages, including a colored map and 63 half-tone views of forest scenery and industries.

The report in greater part consists of regional descriptions, written with special reference to the needs of present and prospective citizens of Alabama. The State is divided into 19 natural divisions (corresponding in a general way, but not exactly, with geological formations), and each is described in detail. The descriptions cover such topics as geology and soils, topography, climate, forest types, a list of native trees with the relative abundance and usual habitat of each, percentage of evergreens, proportion of woodland and clearings, density of population, status of stock laws, average capacity of sawmills, number of mills cutting each kind of timber, and principal forest products. The illustrations, representing scenes in 26 counties, cover about half a page each, on the average, and nearly half of them were taken in the last 12 months.

In an appendix there is a list of all the native trees known in Alabama, with brief statements of their present abundance and local distribution. One of the short-leaf pines is our most abundant tree at present, and the more useful long-leaf pine, which was probably the most abundant in prehistoric times, is a close second. About 50 species in all are of commercial importance.

Another appendix contains a table summing up on a single page some of the characters of the several regions that can be expressed by statistics, such as area, population, percentage of woodland and number and capacity of sawmills. Some interesting contrasts are brought out in this way, and the condition of the lumber industry in each region is seen to depend primarily on soil and topography. The whole State is estimated to be 62 per cent. forest and 38 per cent. fields at the present time, and it has about 600 sawmills large enough to ship their products by rail or water, with an average capacity of over 16,000 feet of lumber a day, to say nothing of planing mills, furniture factories,

etc., which work the rough lumber up into finished products.

The last and longest appendix contains statistics of Alabama forest products, compiled from census reports and other sources. In 1900, the latest year for which there are authentic returns, Alabama produced 1,244,000,000 feet of rough lumber, valued at \$13,563,815. A little over half of this was further manufactured before leaving the State, and its value thereby greatly increased. Pine of several species constituted about nine-tenths of the rough lumber and two-thirds of the finished lumber. In the same year there were produced in the State 2,840,000 gallons of turpentine and 310,000 barrels of rosin, together valued at nearly \$2,500,000; nearly all of this from our most useful tree, the long-leaf pine.

The report is fully indexed, and contains a list of previous publications of the survey, many of which have furnished important information and are still available for distribution to interested persons. The edition is limited to 3000 copies, and most of these will go to libraries and individuals already on the survey's list. But as long as the supply lasts a copy will be sent on request to any address in the United States on receipt of seven cents in ordinary postage stamps (not parcel post stamps) to cover postage.

Virginia's Wood-Using Industries.

The Virginia Department of Agriculture and Immigration, G. W. Koener, commissioner, has published, in co-operation with the National Department of Agriculture, a brochure by Roger E. Simmons, statistician in forest products, on the wood-using industries of Virginia. Data for 23 classes of industries embraced in the report were furnished by 472 manufacturers, and they show that while Virginia is cutting more than 2,000,000,000 feet of lumber annually, not including 257,000,000 feet for slack staves and heading, 20,000,000 feet for veneer, 13,000,000 feet for tight cooperage stock and about 300,000,000 feet for crossties, pulpwood, mining props and telegraph poles, the wood-using industries consume annually \$94,441,902 feet, of which 484,267,968 feet are of woods grown in Virginia. The Virginia-grown woods include ash, beech, basswood, birch, buckeye, red cedar, white cedar, cherry, chestnut, cottonwood, cucumber, cypress, dogwood, soft elm, black gum, tupelo gum, hemlock, hickory, locust, silver maple, sugar maple, black oak, red oak, white oak, persimmon, loblolly pine, long-leaf pine, scrub pine, short-leaf pine, white pine, red gum, sassafras, spruce, sycamore, black walnut and yellow poplar. Virginia's forests cover an area of 15,000,000 acres, or about one-half of the area of the State, and have an estimated value of more than \$100,000,000. The report says that as large areas are better suited for growing hardwood or softwood timber than for farm crops, the State can profitably grow timber as well as manufacture it; that it can maintain its present lumber yield and at the same time furnish material to factories, and that such a policy will not only insure a continuance of present industrial activity, but an even greater prosperity than that for which the Virginia sawmills and wood-using industries at this time are responsible. It urges the establishment of a State forest department with a technically-trained forester in charge and a fire protective system.

The Cottonseed Crushers' Association of Georgia at its meeting last week elected B. L. Bond of Royston, president; P. D. McCarley of Atlanta, vice-president, and A. A. Frierson of Atlanta, secretary-treasurer.

MECHANICAL

Scriven Speed Regulators.

A variable-speed jack shaft which is claimed to operate with minimum power loss and to maintain the speed required to insure machines producing maximum results is manufactured by the S. & S. Variable Speed Gear Co., 50 Church street, New York, and is known as the Scriven speed regulator.

It consists of two expansion pulleys bolted together and mounted on a tubular shaft which is shrunk into side plates forming the outside of the built-up hub. A pinion at the center of the pulleys meshes with the spokes of both right and left pulleys, and, turning the pinion, draws in the spokes of one pulley, while forcing out those of the other. These spokes are staggered, so they do not interfere with each other, and fit in the slots milled in the four plates which compose the hub of each expansion pulley.

In operation the load is carried by the two expansion pulleys and equally balanced by the pinion, the running shaft being free to move backward or forward until the strain of the load on the belts is equalized. In this way the tension is always the same, for when the range is changed the one pulley takes up just the amount of belt length that the other loses.

To adjust the pulleys a threaded sleeve operated either by a chain or hand-wheel communicates a lengthwise movement to an inner shaft, which turns with the tubular drive shaft, and spiral grooves on this inner shaft transmit a rotary movement to the pinion, thus expanding and contracting the pulleys.

Some of the advantages claimed for the Scriven speed regulator are that it maintains a steady speed under a varying load; allows for speed being changed before as well as after starting up; can be installed without closing down machine except to belt; is free from bearing troubles, as strain is the same from both sides; runs equally well in either direction and in any position, and its expansion pulleys have good belt grip.

New Patent Demountable Wagon Body.

A new type of wagon body that may be taken apart and put on and taken off in sections rather than in one piece will be manufactured by W. R. Matthews of Charlotte, N. C., who has purchased the patent rights from George M. Core, the inventor. It is said the device is so constructed that by loosening a few hooks the body can be taken apart and easily put on and taken off without strain or effort by one man, thus filling a long-felt want.

Mr. Matthews has applied for a charter, and is now organizing a company with a view to manufacturing this body in Charlotte.

High-Voltage Direct-Current Locomotives.

The electrification of the Butte, Anaconda & Pacific Railway is of exceptional interest, because it represents one of the largest installations of electrical equipment for steam railroad service and the first in this country where direct-current locomotives operating on as high a potential as 2400 volts will be employed. The construction work necessary to effect the change from steam to electric equipment is now practically completed, and the road is ready to operate as an electric system.

The adoption of the 2400-volt direct-current system for this railway was determined after a comprehensive study of

local conditions and requirements. The traffic demands are unusually severe, and consist principally of hauling long trains of copper ore over heavy mountain grades. In comparison with other existing systems, the 2400-volt direct-current system was considered best suited for the exacting service of this character, and its adoption presented an opportunity to realize unusual economies both in initial expenditure and the cost of operation.

The section of the road that has been equipped lies between Butte and Anaconda, Mont. It comprises 30 miles of main line single track, and numerous sid-

controllers, reversers and rheostats are mounted in two banks running lengthwise of the compartment, as shown in the section illustration, and are arranged with ample space between them to afford access for cleaning, inspection and repair. All parts and circuits carrying 2400 volts are thoroughly protected from accidental contact.

The principal dimensions are: Length inside of knuckles, 37 feet 4 inches; height over cab, 12 feet 10 inches; height with trolley down, 15 feet 6 inches; width over all, 10 feet; total wheelbase, 26 feet; total weight, 160,000 pounds; tractive effort

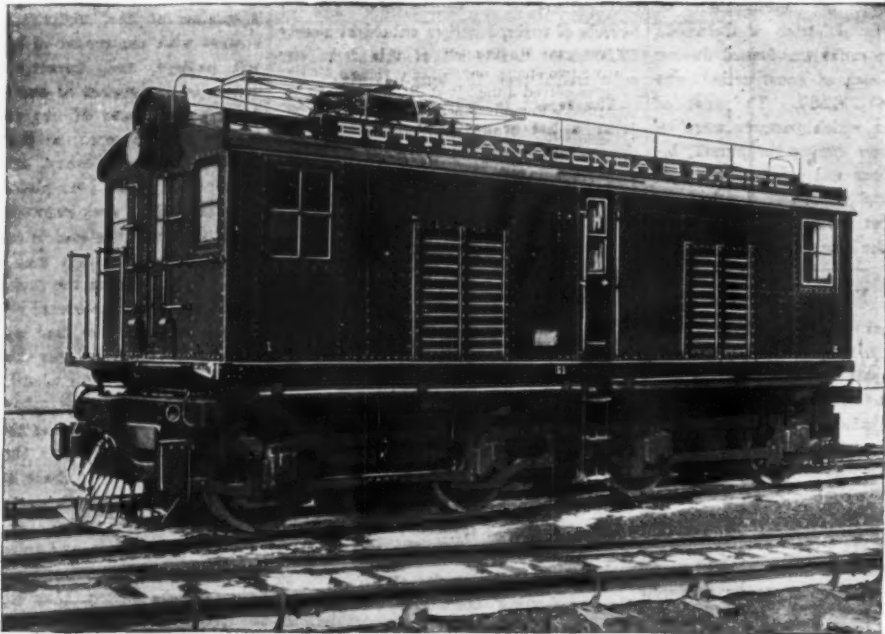
Metallic Tapes With Instantaneous Readings.

There has just been placed on the market by the Lufkin Rule Co. (factories at Saginaw, Mich.) the "metallic" tape with instantaneous readings, marked by a method of numbering in small figures alongside of each inch mark the number of the last preceding foot mark. This renders it unnecessary to refer back to the last foot mark when taking readings, avoiding this chance for error and saving time.

The idea of instantaneous readings

shaft clutch, the interchangeable parts are shown. All parts are made over jigs, so that the fit and interchangeability will be correct. There are no toggle connecting links or other obstructions on the outside of the clutch. Large friction contact surface is given and adjustment is made by one screw, shown in the illustration. With this clutch any standard pulley or sheave wheel, gear, etc., may be used.

In the gasoline engine clutch a guard is fitted over the clutch mechanism, forming a safety device loosely mounted on the clutch, being a part of the hand-wheel, and it prevents the belt being caught in case it should come off the pulley while in motion. Difficulty in starting and getting the load up to speed is eliminated, the engine being started without any load



EIGHTY-TON HIGH VOLTAGE DIRECT-CURRENT LOCOMOTIVE.

ings, yards and smelter tracks, aggregating a total of about 90 miles of tracks.

The initial equipment consists of 17 locomotive units, 15 for freight and 2 for passenger service. Each unit weighs approximately 80 tons. The two units for forming the freight locomotives in each case will be coupled together and operated in multiple unit. The combination freight locomotives are designed to haul the usual trains of 3400 tons at a maximum speed of 15 miles per hour against the ruling grade, and at 21 miles per hour on level straight track. The passenger locomotives are the same design as the freight locomotives, except they are geared for a

at continuous rating, 25,000 pounds, and a sustained output of 2100 horse-power is obtained.

The motors are the G.E.-229-A commutating pole type, insulated for 2400 volts.

The control equipment on the locomotive is the Sprague-General Electric type M multiple unit control, and is designed to operate the four motors in series and series-parallel.

There is one main fuse for the trolley circuit and two fuses for the motor circuits. They are all of the copper ribbon type, and are fitted with hinged covers to facilitate fuse renewals. The boxes are

was applied at first only to its steel tapes by the Lufkin Rule Co., Saginaw, Mich. It has for several years past appeared on all steel tapes of the Lufkin manufacture, and is recognized as a great improvement. The idea is now applied to metallic tapes, and all Lufkin metallic tapes are being supplied with the new marking.

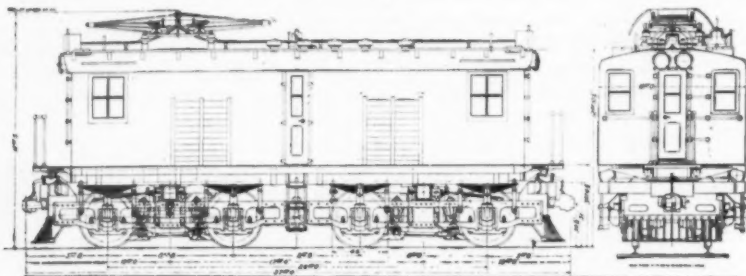
O. K. Friction Clutches.

The two forms of clutches manufactured by the O. K. Clutch & Machinery Co. of Columbia, Pa., are shown in the

whatever and then the friction is gradually applied until the speed is brought up to the requirement while the engine is in full motion. They are applied to the projecting shaft or to the spider bolted to the flywheel, as may be desired. The rim is kept close to the flywheel, thus avoiding danger of the belt being caught between the rim of the pulley and the spokes of the flywheel.

It is claimed that both styles of O. K. clutches are very convenient for the operator, and that they are economical in the saving of power and time. In ordering them the number of revolutions per minute and the horse-power required should be given.

The company is now considering the establishment of relations with distributing agents in all territories where they



SECTIONAL VIEW OF HIGH VOLTAGE LOCOMOTIVE.

maximum speed of 45 miles per hour on level tangent track. All the locomotive equipment, as well as the substation apparatus and overhead line material, was designed and built by the General Electric Co. of Schenectady, N. Y. One of the locomotives is on exhibition at the Master Mechanics' and Master Car Builders' conventions, Atlantic City, N. J., extending from June 11 to 18, inclusive.

The engineer's compartment, at either end of the cab, contains the operator's seat, controller, airbrake valves, bell and whistle ropes, ammeter, air gauges, sanders and other control apparatus. The

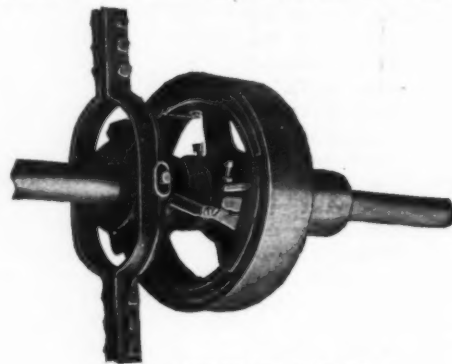
located as near as possible to the overhead trolley, in order to protect the wiring circuits near the source of supply. There is also an auxiliary circuit fuse for protecting locally the dynamotor and heater circuits. The main, motor and auxiliary fuse boxes are provided with powerful magnetic blowouts, energized by current passing through the fuse to insure proper rupture of the arc.

Current is collected by overhead trolleys of the pantograph type. They are pneumatically operated, and can be put into service from either engineer's compartment by a hand-operated valve.

accompanying illustrations. By the use of these clutches the machinery in each department of a plant may be started and stopped independently of other departments. This is a particular advantage when it becomes necessary to repair machinery in one section during working hours or to run one department when other departments are closed down.

The clutches form substitutes for tight and loose pulleys, thus eliminating the shifting of belts. They are also under perfect control, so that they can be stopped and started instantly.

In the illustration of the O. K. line-



O. K. LINESHAFT CLUTCH.

are not at present represented, including foreign countries. A catalogue has been published in English, Spanish, French and German, and will be sent on request to interested persons, together with full particulars regarding the agency terms.

The Tennessee State Manufacturers' Association at its Memphis convention last week elected S. P. Anderson of Memphis, president; D. F. Bonner of Nashville and G. L. Hardwick of Cleveland, vice-presidents; W. A. Moberly of Knoxville and Frank Guthrie of Nashville, governors, and T. R. Winfield of Memphis, treasurer.

Construction Department

TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "it is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription to the Daily Bulletin is included for the contract period.

BRIDGES, CULVERTS, VIADUCTS

Ala., Mobile.—Mobile & Baldwin County Railroad, P. A. Parker, chief engineer, will construct bridges on route of railway between Mobile and Pensacola, Fla.

Ark., Newport.—Bridge Improvement District No. 1, W. D. McLain, chairman, will construct proposed reinforced concrete bridge, 42 feet wide, 200 feet long; also approaches; engineer, Wm. J. Parks, Citizens' Bank Bldg., Pine Bluff, Ark.; bids received until June 30. (See "Machinery Wanted.")

Ga., Albany.—Dougherty county will vote on \$50,000 bond issue to construct system of iron bridges and purchased road-building machinery. Address County Commissioners.

Ga., Hawkinsville.—Commissioner of Roads and Revenues for Pulaski County will repair bridge across Ocmulgee River; bids received until July 1 for furnishing iron material and repair work; H. C. Brown, Clerk. (See "Machinery Wanted.")

Ga., Macon.—Bibb county will erect bridge; reinforced concrete, girder type, 100 feet long, 24 feet wide; bids opened July 15; engineers, Wilbur J. Watson & Co., Charlotte, N. C. (See "Machinery Wanted.")

Ky., Lexington.—Louisville & Nashville Railroad awarded contract to Central Construction Co., Lexington, to construct reinforced concrete viaduct over tracks at Jefferson St.; estimated cost, \$63,000. (Recently mentioned.)

Ky., Louisa.—Lawrence county will erect recently-noted bridge across Catt Creek; two spans 85-foot riveted trusses and one I-beam span; two concrete piers; cost about \$1672.50; bids received until June 15 at office of County Judge. (See "Machinery Wanted.")

La., Bogalusa.—Great Southern Lumber Co. will construct steel bridge to replace wooden structure connecting North and South Bogalusa.

Md., Baltimore.—Board of Awards let contract to Stewart-Jones Company of Rock Hill, S. C., and Calhorne, Johnston & Co., 901 Calvert Bldg., Baltimore (bidding jointly), at \$26,235 for masonry work in connection with bridge No. 2 to be built by Water Board across Gunpowder River near Loch Raven; length about 900 feet; total estimated cost \$150,000. (Recently noted.)

Miss., Gulfport.—Harrison county will construct steel drawbridge across Bay of Biloxi, Lamey's Ferry; Supervisors invite bids.

Mo., St. Louis.—Board of Public Improvements awarded contract to John B. Turner, Pierce Bldg., St. Louis, at \$18,882 to construct two reinforced concrete bridges over tracks of Missouri Pacific Railway at Arsenal St. and Columbia Ave., respectively.

N. C., Southport.—Brunswick county votes July 8 on \$40,000 bond issue to construct bridge across Brunswick River; A. M. Chinn, chairman Commissioners.

N. C., Shelby.—Cleveland County Commissioners awarded contract to Austin Bros. of Atlanta, Ga., at \$5916 to construct steel bridge over river at Double Shoals.

N. C., Tarboro.—Edgecombe county votes July 15 on \$200,000 bond issue to construct

Va., Hanover.—State Highway Commissioner, P. St. J. Wilson, Richmond, Va., will construct bridge across Pamunkey River between Hanover and King William counties; structure 185 feet long, 12 feet wide; steel superstructure; one Std. 399-foot span, one 37-foot and one 29-foot span; concrete substructure; bids received June 23 at King William, Va. (See "Machinery Wanted.")

Va., Richmond.—Administrative Board directed Chesapeake & Ohio Railway, F. I. Cabell, chief engineer, to rebuild bridge over canal at 7th and Byrd Sts.

Va., Tazewell.—Tazewell county will construct steel and concrete bridge across Clinch River near Richlands; 158 feet; 12-foot roadway; two spans, one 37 feet and one 119 feet; bids received June 20; P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

Va., Yorktown.—York county will construct two concrete bridges, over Smith's Creek near Lee Hall and Harrods Mill Creek near Orriana, Va.; 14 feet and 16 feet, respectively; 16-foot roadway; bids received until June 19; P. St. J. Wilson, State Highway Engineer, Richmond, Va. (See "Machinery Wanted.")

W. Va., Berkeley Station (not a post-office).—Cumberland Valley Railroad, G. C. Koons, engineer, Chambersburg, Pa., will, it is reported, construct single track bridge across Potomac River.

W. Va., Lewisburg.—Greenbrier county awarded contract to Luten Bridge Co., York, Pa., at \$1620 to construct 50-foot clear span concrete arch across Kitchens Creek; John E. Dougher, Greenbrier County Road Engineer. (Call for bids recently noted.)

W. Va., Lewisburg.—Greenbrier and Mon-

ganized by J. D. Butterfield (president) and A. J. Baer, both of Bradentown, Fla.; E. J. Atwood of Petersburg, Va., and S. E. Pierson of Terre Haute, Ind.; purchased site with railroad frontage of 200 feet and will expend \$75,000 for building and machinery.

Miss., Columbus.—Tile.—Columbus Tile Co., capitalized at \$10,000, incorporated by C. B. Hardy, W. C. Banks and others.

Mo., Vale (not a postoffice).—Vale Brick Co., 318 Bryant Bldg., Kansas City, Mo., Geo. C. Stephens, president, will expend \$35,000 on plant recently noted to be built with daily capacity of 75,000 bricks; erect fireproof building; electric lighting.

S. C., Gaffney.—Bricks.—Victor Brick Co., capital stock \$6000, incorporated by U. D. Spurgeon, J. R. Benson and J. E. Wright.

Tenn., Chattanooga.—Sibley-Menge Brick & Coal Co., Brown-Marx Bldg., Birmingham, Ala., is considering establishment of brick plant; proposes using kilns and machines formerly used by Chattanooga Pressed Brick Co. at Citico, Tenn.

W. Va., Chester.—China.—Oakwood China Co., capital stock \$10,000 incorporated by Ed McKean, C. J. Howell, M. B. Kistler and others.

W. Va., Parkersburg.—Porcelain.—General Porcelain Co., East Liverpool, O., will build \$400,000 plant for manufacturing electrical porcelain; main building to be 500x300 feet, of brick construction; reports state this plant will be removal of seven factories now located elsewhere; will use 1,000,000 feet natural gas daily.

COAL MINES AND COKE OVENS

Ark., Hartford.—Arkansas Coal & Mining Co., capital stock \$1000, incorporated by W. E. West, W. H. Rush, W. T. Edwards and others.

Ky., Harboursville.—R. C. Tway Coal Co. organizing by Louisville (Ky.) operators; leased property of Dean-Jellco Coal Co., including \$25,000 mining plant.

Ky., Hazard.—Ross-Petroy Coal Co. is being organized by Alexander Ross and Lois E. Petroy; will develop Curt Combs coal tract.

Ky., Hazard.—Hazard Coal Co. awarded contract to Roberts & Schaefer Company, McCormick Bldg., Chicago, Ill., to design and build coal-mining plant at Hazard; will use Marcus combination screen and picking conveying equipment.

W. Va., Wellsburg.—Ohio River Co. incorporated by S. B. Cochrane, Elmer Hough, Robert Wheeler and others.

CONCRETE AND CEMENT PLANTS

Ala., Leeds.—Portland Cement.—Standard Portland Cement Co. will expend \$150,000 during next nine months to increase capacity of plant from 37,000 to 75,000 barrels per month; machinery purchased; Frederick H. Lewis, Brown-Marx Bldg., Birmingham, Ala., engineer in charge; has placed contract with Alabama Power Co. to furnish electricity for next five years. (Previously noted as probably not to enlarge plant this year.)

Miss., Biloxi.—Concrete Bricks, etc.—Petrous Manufacturing Co., D. G. Ziegler, superintendent, will increase capital stock from \$60,000 to \$100,000. (Recently mentioned.)

COTTON COMPRESSES AND GINS

Ga., Rome.—Howell Cotton Co., E. 1st St., First and Second Aves., purchased 8½ acres land and proposes later to build compress and warehouse facilities.

Okla., Allen.—Farmers & Merchants' Gin Co., capital stock \$9000, incorporated by F. M. Moore, W. F. Robertson, A. A. Caldwell and others.

Okla., Port.—Port Gin Co., capital \$8000, incorporated by J. E. McKillip, J. C. Gold, Walter Waller, A. L. Thorp and L. W. Matthews.

Tex., Abilard.—Farmers' Gin Co., capital stock \$6500, incorporated by J. M. Swinney, J. H. Dodson and W. Sullivan.

Tex., Garland.—Farmers' Cotton Gin Co., capital stock \$12,000, incorporated by Jasper Rupard, P. B. Hamlin and W. E. Cowan.

Tex., Melissa.—Farmers' Gin Co., capital stock \$10,000, incorporated by A. L. Shirley, S. H. Parris and J. B. Neal.

PROPOSAL ADVERTISEMENTS

IN THIS ISSUE ARE

PUBLISHED ON PAGES 82 and 83

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bridges and roads. Address County Commissioners.

Okla., El Reno.—Canadian and Grady counties will jointly construct bridge across Canadian River; estimated cost \$38,000. Address Canadian County Commissioners at El Reno or Grady County Commissioners at Chickasha, Okla.

Okla., Guthrie.—Logan County Commissioners will construct bridge across Cimarron River at Division St.; steel and reinforced concrete; stone approaches fortified by cement.

Tenn., Memphis.—Chicago, Rock Island & Pacific Railroad (Arkansas & Memphis Railway Bridge & Terminal Co.), C. A. Morse, chief engineer, Chicago, Ill., awarded contract to Union Bridge & Construction Co., Sharp Bldg., Kansas City, Mo., for construction of substructure of previously-noted bridge across Mississippi River. Contracting company advises Manufacturers Record as follows: Work consists of sinking five pneumatic piers, several smaller piers for approaches, and all shore protection; cost of substructure about \$1,250,000; completed bridge to be about 6000 feet long and located 200 feet above present Frisco bridge; total cost of bridge, including steel superstructure, about \$4,000,000; Ralph Modjeska, Chicago, consulting engineer for the Rock Island road. (Further details recently noted, including mention of designing by Modjeska & Angier of Chicago.)

Tex., Dallas.—Dallas County Commissioners contemplate construction of bridge across Trinity River, connecting southern portion of city and county with Oak Cliff; estimated cost, \$25,000.

Tex., San Antonio.—City votes in July on \$100,000 bond issue for concrete bridges; Clinton G. Brown, Mayor. (Recently mentioned.)

roe counties awarded contract to Luten Bridge Co., York, Pa., at \$4844 to construct two 60-foot clear span reinforced concrete arches across Second Creek; John E. Dougher, Greenbrier County Road Engineer. (Call for bids recently noted.)

CANNING AND PACKING PLANTS

Miss., Biloxi.—Sea Food Co., H. E. Gumbel, president, New Orleans, La., awarded contract to Chris Thompson to build plant; 50x250 feet; corrugated tin. (Recently mentioned.)

Okla., Hurlburt.—Hurlburt Canning Co. will erect canning plant; 22x40 feet; mill construction; metal roof; bids opened in June; install machinery. (Recently noted incorporated with \$1000 capital stock by Carl M. Camp and others.)

Tenn., Memphis.—Memphis Market Gardeners' Canning Co., capital stock \$5000, incorporated by Joe L. Ullathorne, John Lingua, John Beretta and others.

Va., Kenbridge.—Dr. Kendig opens bids about July 15 to erect residence; 43x50 feet; ordinary brick construction; steam heat; gas and electric lighting; slate or asbestos shingle roof; cost \$3000; plans by Herbert L. Cain, Richmond, Va.

CLAYWORKING PLANTS

Ala., Lovick.—L. L. Stevenson, Empire Bldg., Birmingham, Ala., is rebuilding plant recently burned; installing new electrical machinery; plant cost \$100,000; daily capacity 60,000 bricks; Frederick H. Lewis, Brown-Marx Bldg., Birmingham, Ala., engineer in charge.

Fla., Tampa.—Brick, Artificial Stone, etc.—Florida Hydraulic Brick & Stone Co. or-

Tex., New Braunfels.—Farmers' Gin Association, capital stock \$18,000, incorporated by Herman Zipp, Albert Duell and Walter Zipp.

Tex., Richmond.—Fort Bend Cotton Oil Co., capital stock \$50,000, incorporated by D. R. Pearson, J. H. P. Davis and T. A. Wessendorf.

COTTONSEED-OIL MILLS

S. C., Cheraw.—Cheraw Oil & Fertilizer Co., H. M. Duvall, president, has purchased machinery (except motors) for cottonseed-oil mill and fertilizer plant; is erecting 35x200-foot and 35x210-foot brick and frame buildings. (Recently noted to build cottonseed-oil mill, etc.)

Tex., Clarksville.—Wheeler County Cotton Oil Co., capital stock \$40,000, incorporated by A. P. Denison, B. A. Dinwiddle and Clarence Hocker.

Tex., Dallas.—E. L. Flippen (president Armstrong Packing Co.) advises that recently-noted cottonseed-oil mill will be erected by company now organizing. Address W. A. Biard, Waxahatchie, Tex., who will be manager of new mill.

DRAINAGE AND IRRIGATION

Ark., Walnut Ridge.—Running Water Drainage Commission (W. A. Cunningham, L. C. Doyle and H. W. Townsend) will arrange for construction of proposed drainage canal; construct dredge ditch; 12-foot bottom at beginning, increasing to 23 feet at lower end; slope 1 to 1; require 582,000 cubic yards of earth; will drain 25,000 acres for agricultural purposes; estimated cost, \$52,000.

Fla., Sanford.—B. A. Howard, president Winter Gardens, Inc., states company proposes to install subirrigation and drainage system on 4000 acres of land; cost of installation, \$100 per acre; has 300 acres under tile; will use land for growing vegetables and forage crops.

Fla., Tallahassee.—Legislature (Senate) passed Everglades drainage bill recently mentioned as passed by House; provides for \$6,000,000 bond issue to complete drainage of Everglades; Trustees Internal Improvement Fund, J. Stuart Lewis, secretary, in charge. (Resurveying contract, etc., recently noted.)

La., Venice.—Venice Drainage District of Plaquemines parish will construct pumping plant to cost \$46,904; district comprises 1469 acres; board authorized \$60,000 bond issue. Address Drainage Commissioners.

N. C., Dunn.—Stewart's Creek Drainage District (previously noted organized) will construct drainage canals; about 13 miles canals and ditches and 134,471 yards excavation; bids received until July 2; W. K. Allen, engineer, Wilmington, N. C. (See "Machinery Wanted.")

N. C., Statesville.—Commissioners Upper Third Creek Drainage District, Iredell county, will dredge creek from near Alexander county line to old Watt Mill place, about eight miles long, with excavation about 155,000 cubic yards; width of channel, 18 to 22 feet; for further information address L. O. White, engineer, Statesville; bids received until June 10. (See "Machinery Wanted.")

N. C., Swan Quarter.—John P. Kerr, secretary Board of Drainage Commissioners, Asheville, N. C., wires Manufacturers Record: "4500,000 Mattamuskeet drainage bonds sold; contract for erecting pumps awarded to Morris Machine Works, Baldwinville, N. Y.; dredging contract let to A. V. Willis & Son, Pittsfield, Ill." Construction to include dikes; levees; outfall canal, 60 feet wide on bottom, 70 feet wide on top and 8 to 9 feet deep; between 80 and 90 miles of canals, not including laterals; 3,500,000 cubic yards earth excavation; pumping plant with minute capacity 2000 feet water; 120,000 acres in Hyde county; of this, lake bottom of 50,000 acres is owned by Southern Land Reclamation Co. of Asheville, N. C.; 40,000 acres covered by swampy ground; 30,000 acres in cultivation, but flooded during rainy season. (Previously mentioned.)

Okla., Shawnee.—Salt Creek Drainage District opened bids for construction of canal; lowest bidders, McWilliams & McWilliams of Chicago, Ill.

S. C., Hampton.—Hampton county is considering \$300,000 bond issue for system to drain and reclaim 70,000 to 80,000 acres land; Government engineers made surveys. Address County Commissioners.

Tex., Orange.—Teutonic Land Co., A. M. H. Stark, vice-president, is arranging for reclamation of 17,000 acres marsh land on east side of Sabine River; first reclaim unit of 4000 acres.

ELECTRIC PLANTS

Ala., Citronelle.—Citronelle Light, Ice & Power Co., capital stock \$15,000, incorporated

with Daniel E. Smith, president, and Hubbard Parker, vice-president-secretary, both of Mobile; purchased Citronelle Planting Mill Co.'s plant and will remodel for electric-light and ice plant; cost \$25,000; install 50-kilowatt 60-cycle 2300-volt generator and 10-ton ice plant; C. H. Lindsey, superintendent, Mobile, Ala. (Recently mentioned.)

Ala., Decatur.—Alabama Power Co. (Alabama Interstate Power Co., Birmingham, Ala.) will install municipal plant for electric lighting; capacity 1400 horse-power; has purchased steam plant equipment for this installation.

Mo., Liberal.—Liberal Light Co., capital \$7200, incorporated by C. Lipscomb, M. M. Jones and C. H. Dixon.

Mo., Rising Sun.—Rising Sun Water & Light Co. incorporated; Hugh T. Downing, president. (See "Water-works.")

Mo., St. Louis.—Valler & Spies Milling Co. will build power-house; two stories; cost \$8000.

N. C., Lagrange.—H. H. Sutton & Son, owners of local electric-light plant, contemplate erecting power-house and improving system; expect to purchase overshoot water-wheel.

N. C., Washington.—City will make improvements to electric-light plant; Gilbert C. White, consulting engineer, Charlotte, N. C. (Bond issue of \$20,000 recently noted.)

N. C., Rocky Mount.—City voted \$135,000 bond issue for electric-light plant, water-works, paving and sewer extension; L. F. Tillery, Mayor, not W. L. Parrott as recently incorrectly stated.

N. C., Raleigh.—Wiley & Wilson (recently noted as contractor) advise they are consulting engineers for installation of central light, heat and power plant for capitol and adjacent State buildings; expect to have plans and specifications completed within six weeks or two months, and then receive bids for power plant building and chimney, including boilers, pumps, heaters, generators, etc.; underground steam and return mains to connect buildings; also some alterations in present heating equipment in buildings.

Okla., Okmulgee.—Okmulgee Ice & Light Co. contemplates increasing generating capacity of power plant and enlarging boiler-room.

Okla., Tulsa.—Public Service Co. of Oklahoma, Fred. W. Insull of Chicago, Ill., president, Oklahoma City, Okla. (Incorporated with \$3,000,000 capital stock), acquired properties of Tulsa Corporation; plans improvements; Paul M. Galloway to be retained as manager.

S. C., Jonesville.—City defeated bond issue for erection of electric-light plant and water-works; John T. Scott, Mayor. (Recently noted.)

Tex., Franklin.—City Commission contemplates purchasing light and water plants of Franklin Water & Light Co.; if purchased, will issue bonds for enlargements and improvements.

Tex., Plainview.—Malone Ice & Light Co. will double capacity of power plant and construct transmission system to furnish electricity to operate irrigating pumping plants.

Tex., Rockport.—G. E. Russell of Eagle Lake, Tex., purchased Rockport Electric Light & Ice Co.'s plant and will remodel.

Va., West Point.—People's Light, Heat & Power Corporation contemplates installing two gas engines with producers and two alternators. (See "Machinery Wanted.")

FERTILIZER FACTORIES

Ala., Seale.—Seale Fertilizer Co. organized; H. T. Benton, president; W. W. Anderson, secretary-treasurer; will operate plant already completed. (Recently noted incorporated with \$25,000 capital stock.)

Fla., Miami.—McLendon Investment Co., capital stock \$10,000, incorporated with J. B. McLendon, president, Hugh M. Anderson vice-president, A. H. Keller secretary, and W. L. Keller, treasurer; will establish guano and ice plants; guano factory building to be 100x160 feet; ice plant to have daily capacity of 100 tons; cost of each, \$100,000; site has river frontage of 200 feet. (Recently noted.)

S. C., Cheraw.—Cheraw Oil & Fertilizer Co., H. M. Duvall, president (recently noted as having acquired fertilizer plant, etc.), has purchased machinery (except motors) for same; is erecting buildings. (See "Cottonseed Oil Mills.")

FLOUR, FEED AND MEAL MILLS

S. C., Sumter.—Parrott Milling Co. contemplates enlarging plant by installing machinery to manufacture grits.

Tex., Dallas.—Stanard-Tilton Milling Co. (main office, St. Louis, Mo.) will erect building for flour mill; six stories; frontage 190 feet; brick and concrete; cost \$50,000. (Recently incorrectly noted under "Lumber Manufacturing.")

Va., Lawrenceville.—Lawrenceville Roller Mills Co., capital stock \$15,000, incorporated; J. N. Osborn, president; H. L. Wilmoth, vice-president; W. P. House, secretary.

FOUNDRY AND MACHINE PLANTS

Ala., Auburn.—Machinery.—Trustees Alabama Polytechnic Institute appropriated \$10,000 for boiler-room and \$5000 for additional equipment in machinery building.

Ky., Paducah.—Forging Plant.—Lack Singletree Co. will install forging plant.

Md., Baltimore.—Boilers, etc.—Crook-Kries & Co. leased warehouse at Sharp and West Sts. and will use as boiler shop and foundry.

Miss., Gulfport.—Foundry, etc.—Dantzler Foundry and Machine Works, capitalized at \$15,000, incorporated by D. E. Morris, G. B. Dantzler and others.

Mo., Macon.—Novelty Foundry Co., capital \$25,000, incorporated by A. B. Miller, I. A. Cole and E. E. Brock.

Mo., St. Louis.—Coal-oil Engines.—Missouri Engine Co., capital stock \$25,000, incorporated by Adolph E. Winkelmeyer and others; plans to acquire Lippert Engine Works on N. 11th St. and enlarge.

N. C., Winston-Salem.—Machinery, etc.—Salem Manufacturing Co., capital stock \$300,000, incorporated by W. E. Martin, Walter F. Spangh, Fred E. Myers and others.

Tex., Dallas.—Cotton Cleaner.—Dix Cotton Cleaner Co. of Texas, 3001 Commerce St., organized; C. W. Sequin, president; H. H. Watson, vice-president; M. E. Cannon, secretary-treasurer; will act as installing agents of Dix Manufacturing Co., Little Rock, Ark., and Memphis, Tenn. (Recently noted incorporated with \$6000 capital stock.)

W. Va., Sistersville.—Machinery.—McJunkin Machine Co., capital stock \$10,000, incorporated by E. J. McJunkin, E. A. Dunham, C. E. Parr and others.

W. Va., Sistersville.—Machinery.—McJunkin Machine Co. organized by E. J. McJunkin and others to build machine shop.

W. Va., Wheeling.—Iron.—J. E. Moss Iron Works (recently noted incorporated with \$100,000 capital stock by J. E. Moss and others) will operate plant to manufacture structural steel and ornamental iron. (See "Machinery Wanted.")

GAS AND OIL ENTERPRISES

Ala., Mobile.—Tri-State Oil Co., P. J. Glass, president (recently noted incorporated under "Mining") with \$100,000 capital stock, will develop 1000 acres of gas and oil property. (See "Machinery Wanted.")

Ala., Jasper.—Jasper Natural Gas Co. is interested in proposition of Jasper manufacturers to install gas engines; Jasper company is subsidiary of Pennsylvania Oil & Gas Co. of Alabama, receiving gas by contract at wholesale from Pennsylvania company, then distributing to consumers; recently noted. (See "Machinery Wanted.")

Alabama.—A. S. Castellano of Castellano & Dean, Jacksonville, Fla., and associates acquired 55,000 acres natural gas and oil land in Alabama and contemplates development.

Fla., Lakeland.—Gas Plant.—O. M. Eaton and E. H. Youngs will apply for franchise to build gas plant.

Ga., Cedartown.—Gas Plant.—City Council granted franchise to Wilbur K. Sloan of Swedesboro, N. J., to build gas plant. (Recently noted.)

Mo., St. Louis.—Gas.—Laclede Gas Co. will alter retort-house at 1615 N. Wharf St. at cost of \$8000 and alter retort-house at 101-125 Rutgers St. at cost of \$20,000.

N. C., Rocky Mount.—Gas Plant.—City voted \$65,000 bond issue for gas works; construction bids to be asked after sale of bonds; L. F. Tillery, Mayor, not W. L. Parrott as recently incorrectly stated.

Okla., Ardmore.—Dome-Pinal Oil & Gas Co., capital \$25,000, incorporated by N. Gosnell and J. E. Mitchell of Ardmore and J. M. Berger of Santa Marie, Cal.

Okla., Billings.—Bunch Creek Oil & Gas Co., capital stock \$15,000, incorporated by D. C. Frazier, I. N. Miller, Frank Wright and others.

Okla., Muskogee.—Bernwright Oil & Gas Co., capital stock \$50,000, incorporated by W. I. Nicholson, A. L. Epperson and J. S. Rutherford.

Okla., Okmulgee.—Baker Oil Co., capital

stock \$3200, incorporated by C. H. Baker, J. R. Scooby, T. A. Johnston, C. P. Vaughan and J. M. Parrett.

Okla., Oklahoma City.—Zelma Oil Co., capital stock \$50,000, incorporated by W. M. Sawyer, George Houghton, H. B. Houghton and J. M. Hamilton.

Okla., Oklahoma City.—Ira Lee Oil Co., capital stock \$10,500, incorporated by W. C. Brissey, R. A. Carson and F. R. Wehrmeyer.

Okla., Oklahoma City.—Oklahoma-Tennessee Oil & Gas Co., capital stock \$150,000, incorporated by J. M. Condit, H. W. Raup and F. H. Stone, all of Oklahoma City; T. E. Johnson and L. M. Hall of Memphis, Tennessee.

Okla., Pauls Valley.—Night & Day Oil Co., capital \$50,000, incorporated by B. F. King, John W. Scott and J. J. Patterson of Pauls Valley and H. A. Griffin of Wanette, Okla.

Okla., Sapulpa.—Hue Oil Co., capital \$10,000, incorporated by R. J. Hill, John S. Baldwin, A. F. Hill, Jr., and Paul M. Pope, Oklahoma City, Okla., and B. Neal Harris, Atlanta, Ga.

Okla., Tulsa.—Midday Oil Co., capital \$10,000, incorporated by William F. Leschen and I. H. Steinberger of Tulsa and Henry Leschen of St. Louis, Mo.

Okla., Tulsa.—Oakland Petroleum Co., capital \$5000, incorporated by James M. Macklin of Tulsa, F. O. Brown of Redfork, Okla., and John W. McKee of Tulsa.

Okla., Taloga.—Dewey Oil & Gas Co., capital \$25,000, incorporated by F. G. Delaney, H. E. Swartz and H. H. Smith.

Okla., Wewoka.—Wewoka Oil & Gas Co., capital stock \$25,000, incorporated by J. E. Howard, G. J. Owens, S. W. Lane and others.

S. C., Georgetown.—Gas Plant.—Georgetown Gas & Electric Co. (recently reported incorporated with \$100,000 capital stock by Clawson Bachman and James T. Hayden (president and treasurer, respectively, of Georgetown Railway & Light Co., offices 624 Philadelphia Stock Exchange Bldg., Philadelphia, Pa.) advises that J. D. Shattuck, consulting engineer, is preparing plans for erection of gas plant; further announcements later.

Tex., Clarksville.—Red River County Oil & Gas Co., capital stock \$15,000, incorporated by C. Hocker, A. M. Graves and B. A. Dinwiddle.

Tex., Cleveland.—Texas Land & Oil Co., capital stock \$40,000, incorporated by Jeff Cochran, J. M. Hubert and T. S. Falvey.

Tex., Houston.—Houston-Caddo Oil Co. of Houston and Shreveport, La., contemplates increasing capital stock to \$100,000; has two wells and will sink third within month; contemplates developments in Caddo field; E. R. Johnson, president; F. A. Alfleck and G. M. Henderson, vice-presidents; E. J. Dimmick, secretary; George L. Glass, treasurer; Jos. F. Gaume, consulting engineer. (Recently noted incorporated with \$20,000 capital stock.)

Tex., Panhandle.—Biggs Oil & Gas Co., capital stock \$60,000, incorporated by G. D. Biggs, J. J. Carr and L. C. Thompson.

Tex., North Zulch.—Lake Creek Oil Co., capital stock \$15,000 incorporated by W. E. Terrell, M. B. Rice and A. L. Lipscomb.

Tex., Rockdale.—Rockdale Gas & Oil Co., capital stock \$6000, incorporated by H. Lockwood, R. Hale and R. G. Hedge.

W. Va., Clarksburg.—Naughton Drilling Co., capital stock \$10,000, incorporated by A. F. May, Ed. H. Kintzer, Jessie K. Kintzer and others.

W. Va., Davis.—Canaan Valley Oil & Gas Co., capital stock \$10,000, incorporated by George B. Thompson, G. F. Cooper, W. O. Johnson, Jasen Harmon and J. H. Harr.

ICE AND COLD-STORAGE PLANTS

Ala., Citronelle.—Citronelle Light, Ice & Power Co., capital stock \$15,000, incorporated with Daniel E. Smith, president, Mobile, Ala.; will install 10-ton ice plant. (See "Electric Plants.")

Ark., Junction City.—Citizens' Ice & Public Utilities Co., capital stock \$25,000, incorporated by J. M. Brown, A. J. Reynolds, J. D. Proctor, R. G. Brown and others.

Fla., Miami.—Miami Fish Co. will build 40-ton ice plant and cold storage house; two buildings to occupy 50x220 feet.

Fla., Winter Park.—W. C. Temple will, it is reported, build cold-storage warehouse for fruit and produce.

La., New Orleans.—Panama Ice Co. organized with George Mule, president, and Joseph Chalona, secretary; acquired Cos-

metropolitan ice plant and will install 150-ton exhaust steam ice-making equipment; Basil St. Dobree is in charge of reconstructing plant and will remain as chief engineer.

Tenn., Lexington.—H. D. Smith of Memphis, Tenn., acquired former property of Lexington Ice & Cold Storage Co. and will re-equip for manufacturing ice.

Va., Suffolk.—W. R. Frazier and W. H. Dick will, it is reported, install 10-ton refrigerating plant in abattoir. (See "Miscellaneous Enterprises.")

W. Va., Martinsburg.—Rothwell & Co., Inc., contemplate enlarging ice and cold-storage plant to about double present capacity.

IRON AND STEEL PLANTS

Miss., Potts Camp.—Iron Furnace.—Memphis Mining & Manufacturing Co. states will construct 10-ton cold-blast charcoal furnace. (See "Machinery Wanted.")

Va., Big Stone Gap.—Iron Furnace.—R. T. Irvine of Intermont Coal & Iron Co. states company's plans for rebuilding blast furnace are not matured. (Previously noted.)

W. Va., Warwood.—Steel Castings.—Alloy Steel Casting Co. reorganized as Wheeling Steel Casting Co.; reported to enlarge plant; Charles H. Dowler to be general manager.

LAND DEVELOPMENTS

Ala., Montgomery.—Primrose Land Co., capital stock \$60,000, incorporated by O. O. Nelson, W. D. Kessler and W. H. Jennings.

D. C., Washington.—Northwest Washington Land Corporation, capital stock \$15,000, chartered; Wallace Dann, president (1414 F St. N. W.); M. C. Burrell, vice-president, and H. N. DeWitt, treasurer.

Fla., Jacksonville.—Arlington Terminal & Development Co., capital stock \$60,000, incorporated; C. Buckman, president-secretary, and C. F. Verelst, treasurer.

Ga., Wiley.—Howard Orchards Corporation organized with following officers: President, Henry B. Howard of Chattanooga, Tenn.; vice-president, Eugene R. Howard of Nashville, Tenn.; secretary, Walter M. Cline; offices in First National Bank Bldg., Chattanooga; is developing 1400 acres for apple orchards on co-operative plan; units of 50 trees in about one acre. (Previously reported incorporated, etc.)

La., Clinton.—Interurban Real Estate Co., Memphis, Tenn., purchased Blairstown Plantation and property south of Clinton, consisting of several thousand acres; contracted with engineer who will divide tract in 20-acre lots; sell to colonists.

Md., Winona Cliffs (not a postoffice).—Chautauqua Association, Rev. John Roach Straton, general manager, 9 W. 29th St., Baltimore, Md., will develop Winona Cliffs on Round Bay on Severn River as summer resort; tract has water frontage of 2½ miles; plans to divide property into sites for cottages, erect hotel and auditorium, etc.

Miss., Moss Point.—Lorenzo Land Co., capitalized at \$25,000, incorporated by J. L. Dantzier, A. F. Dantzier, A. M. Cowan and others.

Mo., Linn Creek.—Niangua Heights Development Co. will develop 838 acres of land on Osage River as outing resort; will construct dam for lake and develop water-power for lighting of buildings, etc.; cost of improvements \$25,000; H. G. Everett, president; R. G. Scott, secretary-treasurer. (Recently noted incorporated with \$50,000 capital stock.)

N. C., Saluda.—Pittsburgh Development Co., Pittsburgh, Pa., contemplates. It is reported, building lake near Green River cove and developing property around lake for building sites.

S. C., Chick Springs.—J. Thomas Arnold of Greenville, S. C., and associates purchased Chick Springs property, including 136 acres land and will organize company to make improvements costing about \$150,000; plans to construct golf links, tennis courts and lakes, erect hotel, market mineral water, etc.

Tex., Crane County.—Chicago and Milwaukee capitalists purchased (through Haun & Kendall, Dallas, Tex.) 69,000 acres land for colonization; contract to be consummated about July 1. Haun & Kendall advise that purchasers are interested in connected railroad project; that county-seat will be established in center of tract and 10,000 acres developed annually; each 80 acres to be irrigated from central well and pumping plant; each 10,000 acres to be sowed in alfalfa, these to be sold later in 20-acre units.

Tex., Dallas.—Industrial Development Co., capital stock \$25,000, incorporated by Leon H. Fechenbach, Henri L. Bromberg and Alfred L. Bromberg.

Tex., San Antonio.—Sinclair Department Farm Co., capital stock \$80,000, incorporated by William Sinclair, John L. Sinclair and A. Sinclair.

Va., Norfolk.—North Granby Realty Corporation, capital stock \$50,000, chartered; C. L. Young, president; Frederick Aunsbaugh, vice-president; R. C. Aunsbaugh, secretary.

Va., Norfolk.—Center Place Corporation, capital \$15,000, chartered; C. A. Neff, president; T. P. Thompson, vice-president; A. G. Bailey, secretary.

Va., Norfolk.—Willoughby Heights Corporation, capital \$15,000, chartered; J. T. Scott, president, Bridgeport, O.; A. L. Rippard, vice-president; R. F. Hanbury, secretary and treasurer, both of Norfolk.

Va., Richmond.—Company purchased 68 acres land and will develop as suburb Westmoreland Place; Warren H. Manning, landscape architect, Tremont Bldg., Boston, Mass., prepared plans for improvements to include water and sewer systems, gravel driveways with concrete gutters, etc., estimated to cost \$100,000; Golsan & Nash, Inc., agents for owners.

Va., Richmond.—Grantland Development Co., capital \$25,000, incorporated; E. S. Evans, president; W. E. Edwards, vice-president, both of Richmond; James E. Cuthbert, secretary-treasurer, Petersburg, Va.

W. Va., Charleston.—Geary Land Co., capital stock \$125,000, incorporated by George S. Crouch, Sr., E. A. Reid, A. S. Alexander and others.

W. Va., Elkins.—North Elkins Improvement Co., capital stock \$10,000, incorporated by P. F. King, R. B. Harris, O. J. King, C. W. Harding and Albert S. Bosworth.

LUMBER MANUFACTURING

Ark., El Dorado.—M. V. Rogers, Elliott, Ark., will build sawmill.

Ark., Cllo.—Sterling Lumber Co. increased capital stock from \$10,000 to \$100,000.

La., Basile.—The Kern Company, Ltd., New Orleans, La., purchased hardwood timber on about 7000 acres land and will build sawmill.

La., Lake Providence.—Desha Lumber Co., Arkansas City, Ark., purchased timber tract and will operate mill; machinery contracts closed; also build 25 miles of railroad. (Recently noted.)

Miss., Columbus.—Bell Lumber & Manufacturing Co. is installing sawmill of 15,000 feet daily capacity to be operated in connection with planing mill; machinery purchased. (Recently incorrectly noted.)

Miss., Laurel.—Marathon Lumber Co., Wausau, Wis., has been organized and purchased Richardson timber tract; report states acreage is 50,000 and that company will build large mill.

N. C., Jackson County.—Wolf Mountain Lumber Co., S. F. Chapman, president, Asheville, N. C., purchased tract of timber land lying mainly in Jackson county for \$144,000; no immediate development contemplated.

S. C., Georgetown.—Atlantic Coast Lumber Corporation (recently noted as having plans prepared for rebuilding mill, daily capacity 500,000 feet) wires Manufacturers Record: "Mill will be concrete and steel construction, 100 to 250 feet; all information can give now."

Tenn., Burns.—Holland & Moore awarded contract to John Spencer, Burns, for erection of recently-noted sawmill; daily capacity, 12,000 to 15,000 feet hardwood lumber.

Tenn., Memphis.—Teschdy Lumber Co. increased capital stock from \$25,000 to \$100,000.

Tex., Dallas.—Oak Cliff Lumber Co., capital stock \$30,000, incorporated by Louis Lipsitz, W. T. Harris and G. B. Foster.

Tex., Dallas.—Stanard-Tilton Milling Co. will erect building for flour mill; recently incorrectly noted under "Lumber Manufacturing." (See "Flour, Feed and Meal Mills.")

Tex., Garland.—Garland Lumber Co., capital stock \$25,000, incorporated by John E. Quarles, W. W. Barrett and J. T. Walker.

Tex., Hondo.—Sunrise Lumber Co., capital stock \$10,000, incorporated by John J. Kuntz, Roy S. Hollingsworth and Ellis Albaugh.

Tex., Houston.—Union Lumber Co., capital stock \$100,000, incorporated by J. M. West, R. C. Duff, R. M. Farrar and D. D. McCall.

Va., Richmond.—Manchester Lumber Co., capital stock \$100,000, incorporated; L. M. Russell, president, Birmingham, Ala.; M. F. Parker, treasurer, and H. M. Osborne, secretary, both of Chicago, Ill.

W. Va., Streby.—W. C. White Lumber Co., Cumberland, Md., states recently-noted purchase of timber in Grant county consists of

about 875 acres near Streby; contemplates placing mill of about 10,000 feet daily capacity within next 30 days.

W. Va., Albright.—Lewis Lumber Co. organized; T. W. Lewis, president; C. J. Cunningham, vice-president; F. K. Paxton, secretary-treasurer; will operate lumber mill; plant erected; daily capacity, 20,000 feet of timber. (Recently noted incorporated with \$25,000 capital stock.)

METAL-WORKING PLANTS

N. C., Whitney.—Aluminum.—Southern Aluminum Co. voted recently-noted proposed increase of capital stock from \$4,000,000 to \$6,000,000 and \$6,000,000 bonds; additional capital required because of plans for larger and more extensive developments, works, etc., than originally proposed. (Yadkin River hydro-electric plant, aluminum works, etc., recently fully detailed.)

W. Va., Weirton.—Tin Plate.—Phillips Sheet & Tin Plate Co. writes to Manufacturers Record: "Have been considering advisability of building sheet mill, but plans are not sufficiently definite to give out any information or to say that we actually intend to go ahead with the construction."

W. Va., Wheeling.—Sheet and Tin Plate.—Wheeling Sheet & Tin Plate Co. will hold meeting on June 26 to consider increasing capital stock from \$750,000 to \$1,000,000; reported as planning extensive improvements in district.

MINING

Alabama.—Limestone.—Alabama Limestone Co., capital stock \$400,000, incorporated by R. Boyd Cooling, Clarence J. Jacobs and Harry W. Davis of Wilmington, Del.

Ark., Yellville.—Zinc.—R. F. Patterson of Yellville and G. R. Patterson of Washington, Ark., will develop zinc mines.

Md., Cardiff.—Slate.—Oak Hill Slate Co., capital stock \$50,000, incorporated by John A. Robinson, Joseph T. Deckman, William F. Hays, J. Frank Wilcox and Howard S. O'Neill; main office in Belair, Md.

Mo., Joplin.—Silicate.—H. B. Mack and associates will develop silicate mines.

Mo., Joplin.—Lead and Zinc.—Lawson-Cameron Mining Co., capital stock \$20,000, incorporated by L. C. Moses, W. M. Locket and C. W. Graber.

Mo., Joplin.—Lead and Zinc.—W. S. Pate and John E. Putnam of Joplin, William Higgins and others of Louisville, Ky., organized company to develop 21-acre lease on St. Louis-Joplin land in Chitwood district.

Mo., Joplin.—Lead and Zinc.—Mack Mining Co., capital stock \$80,000, incorporated by W. J. Von Borries of Joplin, A. M. Tebbets of Carthage, Mo., and others.

Mo., Sikeston.—Stone.—Buckner-Ragsdale Stone Co., capital \$10,000, incorporated by C. M. Buckner, W. B. Ragsdale and A. B. Gibbs.

Mo., Springfield.—Arthur Kramer and associates will develop mining lease; probably build mill.

Mo., St. Louis.—Last Hope Mining & Milling Co. incorporated by C. E. Blair and D. C. Todd of St. Louis, O. P. Reinhardt of St. Charles, Mo.; capital stock \$50,000.

Mo., Wentworth.—Lead and Zinc.—Wentworth Land & Mining Co. will build mill and develop mining property; R. F. Glenn of Carthage, Mo., in charge of sinking shaft.

N. C., Asheville.—Mica.—Standard Mica Co. (recently noted incorporated under "Telephone Systems" with \$25,000 capital stock) will develop 300 acres mica property; output not determined; F. A. Summer, president; B. H. Summer, vice-president; J. B. Anderson, secretary-treasurer. (See "Machinery Wanted.")

N. C., Gastonia.—Pyrites.—Southern Sulphur Co., Scranton, Pa., is developing pyrites property; has 200 and 150-foot shaft; will sink to 500-foot level and then slope out the ore. (Recently reported as to develop sulphur mine.)

S. C., Gaffney.—Tin.—Cherokee Tin Mining Co., capital stock \$10,000, incorporated by D. D. Nicholas of Gaffney, William Reid and Louis R. Reid of Detroit, Mich.

Tenn., Wayne County.—Iron.—Tennessee Valley Coal, Iron & Railroad Co., W. W. Collins, Hermitage Hotel, Nashville, Tenn., contemplates development of iron-ore properties in Wayne county.

Tex., Waco.—Sand and Gravel.—Texas Sand & Gravel Co. (recently noted incorporated with \$6000 capital stock) will develop 55 acres of sand and gravel deposits; daily capacity, 500 to 600 cubic yards; plant will consist of 8-inch dredge pump and machinery to operate same; pump and engine purchased; later

contemplates enlarging plant and installing machinery for loading gravel and sand direct into cars; W. C. Rettiger, president, Belton, Tex.; H. C. Black, vice-president; T. J. Palm, secretary-treasurer, 1406 Morrow St. (See "Machinery Wanted.")

Va., Big Stone Gap.—Iron.—Consolidated Mining Corporation, capital stock \$100,000, chartered; R. T. Irvine, president; J. W. Kelly, secretary-treasurer, both of Big Stone Gap; F. E. Nolting, vice-president, Richmond, Va.

W. Va., Charleston.—Elmo Mining Co., capital stock \$50,000, incorporated by R. M. Prid, R. S. Spilman, Duke W. Hill, A. C. Collins and Buckner Clay.

MISCELLANEOUS CONSTRUCTION

Ala., Birmingham.—Block Signal System.—Alabama Great Southern Railroad, C. Dougherty, chief engineer, Cincinnati, O., will equip 38 miles of railroad between Moundville and Livingston, Ala., 28 miles, with automatic block signals; cost \$29,000.

Ark., Marion.—Levee.—St. Francis Levee Board asks bids, received until July 1, for 5,000,000 cubic yards levee work; B. G. Covington, chief engineer, 604 Randolph Bldg., Memphis, Tenn.; previously noted. (See "Machinery Wanted.")

Ark., England.—Levee.—Plum Bayou Levee District asks bids, received until July 7, for construction of about 600 feet new levee; about 100,000 cubic yards; engineers, Dickinson & Watkins, State Bank Bldg., Little Rock, Ark. (See "Machinery Wanted.")

Ark., Piggott.—St. Francis Drainage District Commissioners contemplate, it is reported, issuing \$100,000 of bonds from issue previously authorized for strengthening and enlarging levee east of St. Francis River.

Miss., Greenville.—Levee.—Mississippi Levee Commissioners will construct about 2,300,000 cubic yards enlargement and new levees; bids received until June 17. For further information address W. J. Shackelford, chief engineer. (See "Machinery Wanted.")

Mo., Kansas City.—Heating Plant.—Kansas City Heating Co. will build heating plant; one story; reinforced concrete; cost \$25,000; Hucks & Sexton Contracting & Building Co. of Kansas City is contractor; Krehbiel Company of Chicago, Ill., is architect.

Tenn., Chattanooga.—Tunnel.—Hamilton County Commissioners awarded contract to I. C. Mischler of Chattanooga at \$18,111 to complete Missionary Ridge tunnel, to include repairing and replacing defective concrete and brick work in walls and arch, construction of storm-water drain, paving roadway and laying single car track; roadway to be of concrete, with brick in center; L. B. Bryan, County Engineer, 21 Municipal Bldg. (Call for bids lately noted.)

Tenn., Johnson City.—Lake.—Guy L. Smith, George O'Brien and Stokes Buchanan (owners of Tullahoma Mineral Springs in Washington county) are making surveys for lake one-half mile east of springs on Sinking Creek; dam of concrete, 15 feet high and 100 feet long; lake will cover several acres, having average depth of 8 feet and length of 1500 feet.

Tenn., Memphis.—Levee.—Mississippi River Commission, First and Second districts, Custom-house, Memphis, Tenn., ask proposals until June 29 for about 1,900,000 cubic yards levee work; E. M. Markham, major, engineers. (See "Machinery Wanted.")

Tenn., Memphis.—Levee.—City voted \$1,500,000 bond issue to construct levee and pumping system in North Memphis. Address The Mayor. (Lately mentioned.)

Tex., Corpus Christi.—Wharves and Docks. City purchased 153.37 acres land on Harbor Island and will construct wharves and docks. Address The Mayor.

W. Va., Wheeling.—Swimming Pool.—R. E. Keyser of Elm Grove, W. Va., has contract to construct swimming pool at Wheeling Park; estimated to require 40,000 bricks; erect bathhouses.

MISCELLANEOUS ENTERPRISES

Ala., Mobile.—Taxicabs.—Hillman Taxi Service Co., capital stock \$200, incorporated; George D. Hillman, president; Mary F. Hillman, secretary-treasurer; main office, 232 St. Michael St.

Ala., Mobile.—Steamboats.—Tidewater Navigation Co., capital stock \$1,500,000, will be organized to operate steamboats and barges on Warrior and other rivers to Dauphin Island; organized by Tidewater Securities Corporation; J. M. Dewberry, president, Birmingham, Ala.

D. C., Washington.—Publishing.—Cockrell's Transcript Co., capital stock \$20,000, incor-

porated by Don D. Griffith (225 H St. N. W.), Edwin L. Cockrell, Charles F. Nesbit and Eugene A. Jones; will continue plant at 616 E St. N. W.

Fla., Miami—Incinerator.—Florida Cremation Co., capital stock \$50,000, incorporated; T. O. Wilson, president; William N. Urney, vice-president; Clifton D. Benson, secretary-treasurer.

Fla., Titusville—Laundry, etc.—George G. Brockett will erect concrete building; structure leased by L. Eulenfeld and J. E. Nash, who will equip as steam laundry and bottling plant.

Ga., Savannah.—Savannah Towing & Wrecking Co., capital stock \$20,000, incorporated by T. S. Davis, John A. Browne, H. Hodgson and others.

Mo., St. Louis—Printing, etc.—Edward Westen awarded contract to R. A. Anderson Construction Co. to erect building to be occupied by printers, bookbinders and electrotypers; 63 feet 9 inches by 125 feet; fireproof construction; vacuum steam heat; electric lighting; one passenger and one freight elevator; tar and gravel roof; cost \$125,000; plans by W. J. Janisch, 407 N. 8th St., St. Louis. (Recently noted.)

Mo., St. Louis—Upholstering and Carpet Cleaning.—L. Manne Upholstering & Carpet Cleaning Co. incorporated by Leopold Manne, Herman, Joseph and Max Manne; capital stock \$50,000.

Okl., Muskogee—Heating and Plumbing.—Ideal Heating & Plumbing Co., capital stock \$5000, incorporated by C. R. Teter, W. L. Mayes and H. C. Whipperman.

Okl., Tulsa—Publishing.—World Publishing Co. will erect two-story brick building to cost \$3000.

Tex., Amarillo—Grain Elevator.—Early Grain & Elevator Co., capital stock \$40,000, incorporated by Eugene Early, Allen Early and Harry L. Kearns.

Tex., El Paso—Contracting.—Texas Asphalt Paving Co., capital stock \$6000, incorporated by J. W. Eubanks, J. Deemer and W. H. Winter.

Tex., Fort Worth—Grain Elevator.—Bewley Mills will rebuild grain elevator burned at estimated total loss of \$125,000.

Tex., Llano—Granite Crushing.—Company organized by R. H. Downman of New Orleans, La., and J. S. Rice of Houston, Tex., to furnish gravel for State; erect three granite crushers.

Tex., Rogers—Hot Water Wells.—Company organized with \$15,000 capital stock by J. M. Sampson, F. E. Zellner, Ater Bros. and others to develop and exploit hot-water wells; establish bottling works, build pavilion and bathhouses, etc.

Tex., San Antonio—Incinerator.—City votes in July on \$50,000 for incinerators for burning garbage; Clinton G. Brown, Mayor. (Recently mentioned.)

Tex., Texas City—Drydock.—J. H. W. Steele Company, 230 21st St., Galveston, Tex., advises is not ready to announce details relative to contemplated construction of drydock at Texas City (not "Port Arthur," as previously reported).

Tex., Wootan Wells—Mineral Water.—Wootan Wells Water Co., capital stock \$100,000, organized with I. A. Goldstein president, George Robinson vice-president, C. J. Glover, Sr., secretary-manager, and Ed McCullough treasurer, all of Waco, Tex.; purchased wells, hotel, etc.; plans improvements to include remodeling hotel, constructing natatorium, mineral water bottling plant, etc.

Tex., Temple—Publishing.—A. J. Jarrell awarded contract to J. H. Davis of Temple to erect brick building to be equipped and occupied by Temple Daily Telegram; latter will install additional machinery, including \$15,000 printing press.

Va., Norfolk—Water Transportation.—Norfolk-Virginia Steamboat Co., capital stock \$100,000, incorporated; Louis Feuerstein, president; H. G. Babee, vice-president; C. L. Whitchard, secretary.

Md., Frederick—Abattoir.—Frederick Abattoir Co., capital stock \$100,000, incorporated by William J. Martin (of D. B. Martin Company, Brunswick St. and Wilkens Ave.), Baltimore, Md.; Thomas Bertram Hayward and Frank C. Norwood of Frederick; reported as to lease present abattoir with privilege of purchasing.

Mo., St. Louis—Laundry.—Martin, Hoiloran & Co. will build two-story laundry; cost \$5000.

Va., Suffolk—Abattoir.—W. R. Frazier and W. H. Dick will, it is reported, build abattoir to be equipped with 10-ton refrigerating plant.

MISCELLANEOUS FACTORIES

Ala., Mobile—Naval Stores.—Salco Naval Stores Co., capital stock \$5000, incorporated; Paul B. Ray, president; J. F. McGowan, vice-president; W. H. Buck, secretary-treasurer.

Ala., Montgomery—Ice-cream.—Montgomery Ice-Cream Co., capital stock \$20,000, incorporated.

Ark., Little Rock—Bottling.—Evansville Brewing Co., Evansville, Ind., will establish bottling and distributing plant; Fred Wolters, 704 Summit Ave., Little Rock, to be in charge.

Ark., Little Rock—E. L. Brice will erect two-story frame factory building costing \$5000.

Ark., Pocahontas—Buttons.—Black River Button Co. of Corning, Ark., is corresponding with Pocahontas Commercial Club relative to establishing button factory equipped with 100 machines.

Fla., Jacksonville—Puncture Repair.—Puncture Cure Co., capital stock \$50,000, incorporated; T. C. Morris, president; Hugh Partidge, vice-president; P. H. Brock, secretary-treasurer.

Fla., Jacksonville—Tires.—Southern Tire & Supply Co., capital stock \$12,000, incorporated; H. E. Perryman, president; Sam Dunlap, vice-president; C. E. Brown, secretary-treasurer.

Fla., Titusville—Bottling.—L. Eulenfeld and J. E. Nash will install bottling plant. (See "Miscellaneous Enterprises.")

Ga., Atlanta—Ice Cream.—G. T. Fraser awarded contract to Gude & Co., Atlanta, for erection of ice-cream factory to be occupied by Jessup & Antrim Ice Cream Co.; 40x100 feet; two stories and basement; fireproof construction; heating not determined; electric elevator; tar and gravel roof; cost \$17,000; plans by J. C. Battle, Atlanta. (Jessup & Antrim recently noted as to have leased building.)

Ga., Augusta—Plaster.—J. M. Richardson, Lock Box 302, Aiken, S. C., will establish \$25,000 plant for manufacturing hard wall plaster; probably at Augusta; has not purchased machinery. (See "Machinery Wanted.")

Ky., Louisville—Coffee Roasting.—A. Englehard & Sons, 805 W. Main St., will replace equipment and repair burned coffee-roasting plant.

Ky., Louisville—Tannery.—William Schuff & Co. awarded contract to erect proposed tannery; plans by Gray & Wischemeyer, Louisville.

Ky., Louisville—Coffee Roasting and Spice Grinding.—Frank Zinsmeister, New Albany, Ind., will rebuild plant (for A. Englehard & Sons Company) recently reported burned.

La., New Orleans—Bottling.—American Brewing Co. contemplates enlarging bottling plant on Conti St.

La., New Orleans—Refrigerators.—Gulf State Vacuum Refrigerating Co. (recently noted incorporated with \$50,000 capital stock) states company will act as sales agents only; will not manufacture; G. D. Warner, president.

La., Ponchatoula—Cane Mill.—Farmers' Association contemplates building can mill and box factory; John M. Akers is interested.

Md., Baltimore—Spices, etc.—McCormick & Co., 105-119 Concord St., are having plans prepared for enlarging plant; erect two additional stories.

Md., Cockeysville—Distillery.—Sherwood Distillery Co. will install three evaporators in food-drying plant recently completed (concrete building and machinery) at cost of \$35,000.

Miss., Hattiesburg—Naval Stores.—Grooms-Forrester Naval Stores Co. organized by A. W. Harper, J. O. Gillespie, E. L. Grooms, J. Foretitch and others, all of Gulfport, Miss., to extract rosin, turpentine and similar products from pine wood and stumpage; machinery purchased.

Miss., Hattiesburg—Cane Mill.—W. C. Parkinson of Kansas City, Mo., and R. Best of St. Louis, Mo., acquired syrup plant of McInnis Canning Co.; operated last season for grinding cane and canning syrup; will change and enlarge for grinding sorghum and Louisiana cane.

Mo., Cape Girardeau.—Thomas Powers Manufacturing Co., capital \$5000, incorporated by W. C. Mattingly, R. J. Peers and Thomas Powers.

Mo., St. Louis—Organs.—George Kilgen & Son, 3317 Laclede Ave., will build addition to plant; three stories; 55x83 feet; supplies 15,000 square feet additional floor space for machine-rooms and dry-kilns; cost of addi-

tion \$15,000; awarded contract to C. Lund, 810 Olive St., St. Louis.

Mo., St. Louis—Chemical Products.—American Products Co., capital stock \$50,000, incorporated by W. A. Brickey, H. B. Barton and Raymond Cook to manufacture chemical and allied products.

N. C., Charlotte—Wagon Body.—W. R. Matthews, 1208 Commercial Bank Bldg., is organizing company to manufacture patented combination wagon body.

N. C., China Grove—Brooms.—Charles D. Watkins awarded contract to White & Powlas to erect broom factory; 50x100 feet; frame; electric lighting; galvanized-iron roof. (See "Machinery Wanted.")

N. C., Fayetteville—Medicine.—Edwards Medicine Co., capital stock \$10,000, incorporated by William F. Edwards, Sallie R. Edwards and Lucy Jones.

Okl., Enid—Paint.—Manning Paint Co. organized; J. P. Cook, president; E. N. McKee, vice-president; H. A. Dillon, secretary; H. H. Houston, treasurer; W. M. Manning, general manager; will operate paint plant. (Recently noted incorporated with \$5000 capital stock.)

S. C., Columbia—Window-shade Bracket.—Adjustable Window-Shade Bracket Manufacturing Co., capital stock \$20,000, incorporated by W. H. Drake and J. W. Durham.

Tenn., Dayton—Overalls.—J. F. Woodward and associates contemplate erection of overall factory. (See "Machinery Wanted.")

Tenn., Wayne County—Wood Chemicals.—Tennessee Valley Coal, Iron & Railroad Co., W. W. Collin, Hermitage Hotel, Nashville, Tenn., contemplates construction of wood chemical plant in Wayne county.

Tex., Alpine—Wax.—Rio Grande Wax Co. will build additional plant; also erect refinery in San Antonio, Tex., with daily capacity of 10 tons of wax.

Tex., Houston—Trunks.—Houston Trunk Factory, capital stock \$10,000, incorporated by O. L. White, C. W. Kattache and J. J. Dillon.

Tex., San Antonio—Lubricating Grease.—Rubra Lubricating Co. (P. F. Sarber and C. W. Haight), Chicago, Ill., will establish plant at 1622 W. Commerce St. to manufacture lubricating grease for trolley cars, automobiles, etc.

Tex., San Antonio—Candelilla Wax.—Rio Grande Wax Co., Alpine, Tex., will install plant to manufacture "candelilla" erect refinery with daily capacity 10 tons wax. (Previously noted, under Alpine, as operating factory No. 1 and contemplating erection of additional similar plants.)

Tex., South Houston—Fireworks.—Texas Mortgage Co., John H. Wankelman, secretary, Dallas, Tex., secured site in South Houston on which to build fireworks factory; agrees to erect factory building costing \$5000 and install machinery costing \$3000. (Recently mentioned.)

Va., Newport News—Silverware.—Buck Silver Co. of Salamanca, N. Y., is corresponding with Chamber of Commerce relative to establishment of plant.

Va., Norfolk—Industrial Building.—Syndicate Realty Co. has plans by Russell Edward Mitchell for industrial building; six stories; 79x86 feet; reinforced concrete and metal; floors of heavy construction to accommodate printing presses; 6000 square feet floor space on each floor; passenger elevator; electric freight elevators; stores on first floor; estimated cost, \$62,000.

Va., Richmond—Specialties.—Compensating Specialties Co., capital \$50,000, incorporated; S. H. Lewis, president; R. H. Talley, vice-president; R. A. Sheppard, secretary.

W. Va., Morgantown—Glass.—Athens Glass Co. will erect plant, complete, including buildings, machinery and full equipment for tumblers, etc.; J. M. Wood, president; Howard A. Kauffeld, vice-president, Star City, W. Va.; E. B. Stone, secretary-treasurer. (Recently noted incorporated with \$100,000 capital stock.)

MOTORS AND GARAGES

Ark., Hot Springs—Automobiles.—Garland Auto Co., capital stock \$10,000, incorporated by Coffee Williams, G. C. Irvine, L. D. Cooper and others.

Fla., Jacksonville—Garage.—Ye Auto Shop, capital stock \$5000, incorporated; William E. Kay, president, Brooklyn, N. Y.; H. L. Lind, vice-president, and C. R. Rowison, secretary-treasurer, both of Jacksonville.

Md., Easton—Garage.—P. E. Corkran will build garage.

Mo., St. Louis—Automobiles.—G. M. Automobile Co., capital stock \$5000, incorporated by Robert Fritzsche, Edward E. Schoening and Henry F. Glamann.

Mo., St. Louis—Garage.—Delor Realty Co. (George T. Burdeau and others) will erect building for Hudson-Phillips Automobile Co.; brick structure with terra-cotta trimmings; first floor for garage, having showroom finished with vitreous tile floors, marble base and wood wainscoting eight feet high; second floor with center saw-tooth skylights; rear of second floor for repair shop; basement for heating plant; site 50x155 feet; plans by Albert B. Groves of St. Louis.

N. C., Asheville—Garage.—Independent Order of Odd Fellows are having plans prepared for garage and lodge building. (See "Association and Fraternal Buildings.")

N. C., Thomasville—Automobiles.—Morris Motor Co., capital stock \$40,000, incorporated by J. A. B. F. and J. M. Morris; will erect garage; 26x35 feet; two stories; brick; tin roof; plans by P. S. Cecil of Thomasville, N. C.

Okl., Tulsa—Automobiles.—J. B. Levy will, it is reported, establish plant to manufacture racing cars.

Va., Norfolk—Garage.—Universal Garage, capital stock \$5000, incorporated; George G. Dodge, president; William W. Old, Jr., vice-president; L. E. Dodge, secretary.

Va., Pulaski—Garage.—H. W. Steger and F. J. Laughon are having plans prepared for garage; 60x165 feet; brick laid in cement; concrete floors; ceiling supported by steel girders; front of plate glass; repair and work room to be separated from main storage room by brick fire wall; hot-water heating; capacity of about 100 cars.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ala., Mobile—Dauphin Island Railway & Power Co., previously incorporated with \$1,500,000 capital stock, is reported as contemplating plans for development of Dauphin Island as port and terminal for transportation facilities; management of Tidewater Securities Corporation, J. M. Dewberry, president, Birmingham, Ala.

Ala., Volanta—Mobile & Baldwin County Railroad, P. A. Parker, chief engineer, Mobile, Ala., will build repair shops.

Ala., York—Alabama, Tennessee & Northern Railroad, John T. Cochrane, president, Mobile, Ala., will build shops; contract awarded for steel work.

Tenn., Franklin—Middle Tennessee Traction Co., John A. Pitts, president, Nashville, Tenn., will build repair shops.

Tex., Cleburne—Gulf, Colorado & Santa Fe Railway, F. Merritt, chief engineer, Galveston, Tex., will expend \$123,303.80 in improvements to shops as follows: Planing mill, brick, 76x252 feet, cost \$46,647.58; wheel shop, brick, 40x100 feet, cost \$6310.86; dry-kiln, 51x61.11 feet, cost \$10,171.91; three transfer tables, each about 200 feet long, concrete, cost \$5164; lumber shed, 40x210 feet, cost \$3410.45; three car-repair sheds, 40x450, 40x396 and 40x504 feet, respectively, cost \$25,126.25; boiler-room annex (part of planing mill and included in cost of that building), size 49x40 feet, install machinery to cost \$28,455.75.

Tex., Denison—Missouri, Kansas & Texas Railway, A. M. Acheson, chief engineer operation, Dallas, Tex., will enlarge shops and install additional machinery increasing monthly capacity from 16 to 35 engines per month; erecting addition to machine shops to accommodate 12 additional engines and plans provide for further enlargements; ordered \$20,000 worth of machinery in addition to equipment being shipped from other cities where shops have been reduced in size; additional equipment to be installed will include: In machine shops, wheel lathe, etc.; in blacksmith shop, steam hammer (concrete foundation for which is being laid), two oil-burning forges for handling axles, bolt machinery, bulldozer to produce several assortments of work, including bending, heating and shaping steps for car ladders, etc.

ROAD AND STREET WORK

Ala., Anniston—Calhoun County Commissioners awarded contract to Goodrich & Crinkley to construct about five miles of road.

Ala., Hartselle—City asks bids, to be received until June 13, for construction of about 22,000 square yards tarvia concrete, 7000 linear feet concrete combined curb and gutter, 1700 linear feet concrete gutter and 1000 square yards concrete sidewalks; R. A.

Burlison, City Engineer. (See "Machinery Wanted.")

Ala., Montgomery.—City Commission awarded contract to James Hodgson at \$5435 to pave Carter Hill Rd. from bridge to Hall St.; commission also awarded contract at \$2700 to pave roadway from Second to Fifth Ave.

Ala., New Decatur.—City will grade, curb, gutter and pave certain streets with asphaltic concrete; work will embrace furnishing and setting 17,000 linear feet concrete curb and gutter; foundations and surfacing, 85,000 square yards of pavement; bids received until June 18; R. H. Wolcott, Mayor; Henry Hartung, Clerk. (See "Machinery Wanted.")

Ark., Little Rock.—State Highway Commission, Reuben G. Dye, president, is considering construction of rock highway to extend from Missouri State line at St. Francis, Ark., through county-seat towns of Clay, Greene, Craighead, Polk, Cross and St. Francis to Forrest City, 125 miles; road will be link in chain of roads in Duluth-to-the-Gulf highway and connect at Forrest City with proposed Ocean-to-ocean highway from Washington, D. C., to San Diego, Cal.; estimated cost \$500,000; will organize special road district to finance project.

Fla., Bartow.—Polk County Commissioners are arranging to construct proposed road from Eagle Lake through Winter Haven, Lucerne Park, Haines City, Davenport and Loughman to county line; bonds voted.

Fla., Jacksonville.—City will pave 100,000 square yards roadway (recently noted) with vitrified brick on concrete base, on sand base, asphaltic concrete, granitoid and dolowar; bids opened June 12; L. D. Smoot, chief engineer, Engineer Bldg., Jacksonville. (See "Machinery Wanted.")

Fla., Miami.—Dade county is preparing to expend \$100,000 for road improvements; Frank A. Bryan, chairman of Dade County Commissioners.

Fla., Orlando.—City contemplates voting on \$100,000 bond issue to pave streets with brick. Address The Mayor.

Fla., Sanford.—City considering bond issue to improve streets. Address The Mayor.

Fla., Tampa.—Hillsborough county votes July 29 on \$1,000,000 bond issue for paving roads with brick; about 67½ miles to be improved. Address County Commissioners.

Ga., Savannah.—City will pave portions of Barnard, York, Hull, Perry, Harris and Taylor Sts.; invites bids on 17,000 square yards creosoted wood block or asphalt block paving. E. R. Conant, chief engineer.

La., Gretna.—Road Districts Nos. 1 and 2 of Jefferson parish voted \$200,000 bond issue for road improvements; \$100,000 for building model roadway from Harvey Canal to St. Charles parish, right bank Mississippi River, and \$100,000 to construct road from Protection Levee to Kenner and from Metairie Ridge to Shrewsbury, left bank Mississippi River. Address County Commissioners. (Recently mentioned.)

La., New Orleans.—City awarded contract to Adams & Stewart to pave Magazine St. through Audubon Park; A. G. Ricks, commissioner. (Call for bids lately noted.)

Md., Baltimore.—City awarded contract to Eastern Paving Co. of Philadelphia, Pa., at \$6555.25 to pave with sheet asphalt West St. from Light St. to Riverside Ave., Contract No. 56, 2700 square yards; also to Martin J. Beach, 808 American Bldg., Baltimore, at \$27,410 to pave Central Ave. from Fayette to Fawn St., Contract No. 57, 4200 square yards vitrified block and 4800 square yards granite block paving; R. Keith Compton, chairman Paving Commission. (Call for bids lately noted.)

Md., Baltimore.—City awarded paving contract to Frech & Allen of Westminster, Md., at \$68,200; 60,000 cubic yards excavation; 4900 linear feet sheet asphalt 40 feet wide; 9300 feet curb; Hilton St., contract No. 118. (Call for bids lately noted.)

Md., Baltimore.—City will grade, curb and pave with bituminous concrete, contract No. 121, including portions of Gullford Ave., 28th and 30th Sts.; 9539 square yards; bids received until June 18; Eugene E. Grannan, president Commission for Opening Streets. (See "Machinery Wanted.")

Md., Baltimore.—City will grade, curb and pave various streets included in contracts Nos. 58, 59, 60 and 61; contract No. 58 involves 14,400 square yards vitrified block; No. 59, 5050 square yards vitrified block; No. 60, 11,600 square yards granite block, and No. 61, 9510 square yards granite block or Hassam granite block and 1500 square yards vitrified block; Board of Awards receives bids until June 18; R. Keith Compton, chairman Paving Commission. (See "Machinery Wanted.")

Md., Cumberland.—City awarded following contracts for street paving: Modern Concrete Construction Co., at \$9093.41; Frederick Perry, at \$4101.65; Lewis Lebeck, at \$1075.89; total about 2150 feet; James P. Gaffney, City Engineer. (Call for bids lately noted.)

Md., Rockville.—George B. Mullin, 3002 14th St. N. W., Washington, D. C., has contract to pike five miles of Rockville-Georgetown Rd., beginning at Rockville.

Miss., Brandon.—Rankin County Supervisors will issue \$75,000 bonds for road construction.

Miss., Grenada.—City will construct 14,000 square yards vitrified brick, wood block, concrete and bitulithic pavement and 4000 linear feet concrete curb, including all necessary grading, water and sewer connections; bids received until July 8; L. B. James, City Recorder. (See "Machinery Wanted.")

Miss., Fayette.—Third District of Jefferson county defeated \$50,000 bond issue for road construction. Address County Commissioners.

Miss., Forest.—Scott County Supervisors, O. B. Trippett, chairman, awarded contract to Sutherland Construction Co. of Kansas City, Mo., at \$18,807 to construct 4½ miles gravel road. (Call for bids lately noted.)

Miss., Jackson.—City voted bond issue to pave streets; B. H. Klyce, City Engineer.

Miss., Meridian.—Good Roads Commission, C. C. Dunn, chairman, awarded contract to J. O. Kittel of Nashville, Tenn., at \$104,367.09 to construct roads; 20.27 miles novaculite surfacing and 15.48 miles sand and clay; W. P. Moore, chief engineer. (Call for bids lately noted.)

Miss., McComb.—City awarded contract to C. G. Miller of Natchez, Miss., for 2000 yards concrete sidewalk.

Miss., Raleigh.—Smith county is asking bids, to be received until June 16, for construction of 15.2 miles sand-clay road in Beat 1; S. B. Snowden, engineer. (See "Machinery Wanted.")

Miss., Seminary.—District No. 1, Covington county, O. W. Conner, chairman, will open bids August 4 for construction of recently-noted roads; \$50,000 available; Xavier A. Kramer, Magnolia, Miss., engineer. (See "Machinery Wanted.")

Miss., Tupelo.—Second District of Lee County is arranging to improve roads; \$40,000 bond issue available. Address County Commissioners.

Mo., Mount Vernon.—Lawrence County Commissioners invite bids until June 14 for road construction, to include grading and graveling and construction of culverts; separate bids for graveling; \$50,000 bond issue voted; Lawrence Johnson, treasurer Special Road District.

Mo., Poplar Bluff.—City asks bids, to be received until June 30, for proposed paving; 36,201 square yards vitrified brick pavement; 18,596 feet curb and gutter; 1969 feet headers; 10,531 cubic yards excavation; 16 basins; 120 feet 8-inch and 70 feet 12-inch pipe; estimated cost \$88,093; Edward C. Thomas, City Engineer. (See "Machinery Wanted.")

N. C., Ashboro.—Randolph county has called off for the present the recently-noted election for road construction bond issue; George T. Murdock, clerk Board of County Commissioners.

N. C., Lenoir.—Caldwell county will construct road from Lenoir to Hickory; County Commissioners will appropriate \$1000.

N. C., Mebane.—Orange County Good Roads Commission, M. H. Stacy, secretary, Chapel Hill, N. C., asks bids until July 7 for clearing, grading and draining 9.23 miles highway from Mebane to Hillsboro. (See "Machinery Wanted.")

N. C., Mooresville.—Town votes July 8 on \$15,000 bond issue for street improvements. Address Town Commissioners.

N. C., Oxford.—City votes June 14 on \$10,000 bonds for street and sidewalks improvements; T. G. Stem, Mayor. (Recently noted.)

N. C., Robersonville.—Robersonville township voted \$50,000 bond issue for road improvements; A. E. Smith, chairman Board of Road Trustees.

N. C., Snow Hill.—Greene county will vote on \$20,000 bond issue for road improvements. Address County Commissioners.

N. C., Rocky Mount.—City voted \$135,000 bond issue for paving, sewer extension, water-works and electric-light plant; L. F. Tillery, Mayor, not W. L. Parrott as recently incorrectly noted.

N. C., Tarboro.—Edgecombe county votes July 15 on \$200,000 bond issue to construct roads and bridges. Address County Commissioners.

Okla., Atoka.—City is reported as considering street paving and construction of sewer system. Address The Mayor.

S. C., Columbia.—Richland County Commissioners awarded tentative contract to Weston & Brooker of Columbia to construct Shandon Highway; 25 feet for sidewalks and border between property line and curb on each side of street; street bed 20 feet wide; 18-foot paved driveway on each side of car tracks; four-inch concrete base and two-inch surface; \$18,000 appropriated.

S. C., Lancaster.—City votes June 25 on \$13,000 bond issue for street and road improvements. Address The Mayor. (Recently mentioned.)

S. C., Spartanburg.—City votes July 8 on \$100,000 bond issue for street improvements. Address The Mayor. (Recently mentioned.)

Tenn., Knoxville.—Bids are received by city until June 13 for previously-noted paving on White Ave. and 2d St., district 98; 1680 square yards paving, 700 cubic yards excavation, 1072 linear feet concrete curb, etc.; D. G. Leahy, recorder. (See "Machinery Wanted.")

Tenn., Knoxville.—City will pave and otherwise improve District No. 98, White Ave. and 2d St.; paving 1680 square yards, excavation 700 cubic yards, concrete curb 1072 linear feet and other miscellaneous items; bids received until June 13; D. G. Leahy, recorder. (See "Machinery Wanted.")

Tenn., Mascot.—Board of Commerce will petition Knox County Road Commissioners to construct three miles of road at Mascot end of Knoxville-Mascot pike.

Tex., Belton.—City votes July 2 on \$50,000 bond issue for street paving. Address The Mayor.

Tex., Belton.—Bell County Commissioners will soon award contract for road construction in Precinct No. 1, including Temple, Tex.; \$150,000 bond issue recently reported voted.

Tex., Bryan.—City will pave Main St. and street intersections with creosoted wood block, brick, Westramite, bitulithic, Bermudez bituminous concrete, asphaltic concrete, Blome granitoid, sheet asphalt, Hassam compressed concrete or plain concrete; about 16,000 square yards; bids received until June 11; Carson & Adams, consulting engineers, Bryan; W. W. Harris, Mayor. (Street paving recently noted.)

Tex., Clarksville.—Clarksville Precinct of Red River county voted \$300,000 bond issue for road construction. Address County Commissioners.

Tex., Corpus Christi.—Nueces county votes July 19 on \$500,000 bond issue to construct about 200 miles of road. Address County Commissioners. (Recently mentioned.)

Tex., Paducah.—Commissioners' Precinct No. 1 votes June 28 on \$50,000 road bond issue. Address County Commissioners.

Tex., San Antonio.—City votes in July on \$3,450,000 bond issue to be divided as follows: \$1,500,000 for street paving, city to pay one-third; \$375,000 for opening and widening streets, city to pay one-third; \$25,000 for sidewalks around public property; \$100,000 for concrete bridges; \$300,000 for sanitary sewers; \$300,000 for storm sewers; \$125,000 for city hospitals; \$100,000 for central fire and police stations; \$50,000 for additional fire stations; \$25,000 for placing police and fire alarm system underground and purchase of additional alarm boxes; \$50,000 for incinerators for burning garbage; Clinton G. Brown, Mayor. (Recently mentioned.)

Tex., Tyler.—Road District No. 1 of Smith County will construct sand-clay roads; amount available, \$75,000; date of opening bids not set; Jesse F. Odom, county judge. (Recently noted as to vote July 8 on \$300,000 bond issue for road improvement.)

Va., Wise.—Wise county asks bids until June 24 for grading of 15.8 miles road in four sections; also macadamizing 4.3 miles, seven sections; P. St. J. Wilson, State Highway Engineer, Richmond, Va. (See "Machinery Wanted.")

SEWER CONSTRUCTION

Ala., Birmingham.—City awarded following contracts to extend sewer system, connecting north and south side: Southern Asphalt & Construction Co. of Birmingham, sections Nos. 1, 2 and 3 at \$70,940, \$26,945 and \$70,652, respectively; A. C. Brooks & Co., section No. 4 at \$27,344.50; total amount of contracts, \$195,781.50; Walter G. Kirkpatrick, City Engineer. (Call for bids lately noted.)

Ark., Clarendon.—City will construct sewerage system and water-works; plans not made; proposals may be addressed to F. M. Kennedy. (Recently noted as having issued

\$60,000 of water-works and sewerage improvement bonds.)

Ark., Conway.—Joseph McCoppin of Little Rock, Ark., is lowest bidder at \$35,124.90 for construction of sewer system; 55,000 feet 8-inch, 8100 feet 10-inch, 1700 feet 12-inch, and 3000 feet 15-inch pipe and two septic tanks; G. H. Burr, engineer in charge. (Call for bids lately noted.)

Ga., Jackson.—City, W. E. Watkins, Mayor, will vote July 8 on recently-noted bond issue for sewer construction; amount \$23,000.

Ga., Thomaston.—City voted \$15,000 bond issue for improvements to sewer and water-works systems; J. B. McCrary Company, engineer, Third National Bank Bldg., Atlanta, Ga.; Hugh Thurston, Mayor. (Recently mentioned.)

La., Baton Rouge.—City Engineer R. Swart advises that city will probably not proceed with sewer construction for one year. (Bond issue, recently noted voted, included \$38,000 for sewer extension and \$20,000 for drainage.)

Miss., Laurel.—City Commissioners awarded contract to Dabbs & Wetmore of Meridian, Miss., to construct storm sewers in residential district; D. S. Scarborough, City Clerk.

N. C., Dunn.—Town Council engaged Gilbert C. White, Charlotte, N. C., to prepare plans and specifications and invite bids for construction of sewer system; planned to have Black River as outlet and use disposal tanks when river is low.

N. C., Mooresville.—Town votes July 8 on \$30,000 bond issue for sewer construction. Address Town Commissioners.

N. C., Rocky Mount.—City voted \$135,000 bond issue for sewers, water-works, electric-light plant and paving; L. F. Tillery, Mayor, not W. L. Parrott as recently incorrectly stated.

N. C., Washington.—City will make improvements to sewer system, electric-light plant and water-works; Gilbert C. White, consulting engineer, Charlotte, N. C. (Bond issue of \$130,000 recently noted voted for construction of sewers and water-works.)

Okla., Atoka.—City is reported as considering construction of sewer system and street paving. Address The Mayor.

Okla., Enid.—City will construct sanitary sewer system in Sewer District No. 57; bids received until June 14; B. F. Lewis, City Engineer; W. C. Rogers, City Clerk. (See "Machinery Wanted.")

Okla., Henryetta.—City asks bids, received until June 25, for construction of proposed system of main sanitary sewers; Benham Engineering Co., 435 American National Bank Bldg., Oklahoma City, Okla., consulting and supervising engineer. (See "Machinery Wanted.")

Okla., Tulsa.—City will construct sanitary sewers in Districts Nos. 86 and 87 in Mitchell-Crosbie Addition in portions of Blocks 1, 2 and 3 recently noted; bids received until June 16 (extended date); T. C. Hughes, City Engineer. (See "Machinery Wanted.")

S. C., Lancaster.—City votes June 25 on \$45,000 bond issue to construct sewer system. Address The Mayor. (Recently mentioned.)

Tenn., Greenville.—City voted \$40,000 bond issue for sewerage improvements; W. H. Doughty, secretary Water Commission.

Tex., San Antonio.—City votes in July on \$300,000 for storm sewers and \$800,000 for sanitary sewers; Clinton G. Brown, Mayor. (See "Road and Street Work.")

Tex., Waco.—City will construct sewer line along Brazos River from present Jefferson St. main to N. 4th and Proctor Sts.; will include laying 3000 linear feet 15-inch, 3000 linear feet 8-inch and 1000 linear feet 6-inch tile pipe and 1150 linear feet 16-inch cast-iron pipe, together with necessary trestle work, specials and excavation, etc.; bids received until June 20; John W. Foster, Commissioner of Streets, Sewers and Public Improvements; specifications, profiles, etc., at office of C. E. Byars, City Engineer, on and after June 17. (See "Machinery Wanted.")

Tex., Weatherford.—City, Hugh McGrattan, Mayor, will vote June 25 on bond issue for sewer improvements.

Tex., Polytechnic.—City will construct proposed sewer system; 16,000 feet; bids received until June 12; plans and specifications by Nagel & Peterson, Muskogee, Okla., and Dallas, Tex. (See "Machinery Wanted.")

Va., Ashland.—City is considering purchase of Ashland Gas, Sewerage & Water Co.'s plant; F. W. Scarborough, civil engineer, submitted estimates. (See "Water-works.")

Va., Galax.—Town Council passed ordinance to issue bonds to construct sewer system and water-works. Address Town Clerk.

TELEPHONE SYSTEMS

Ark., Pine Bluff.—Citizens' Telephone Co. increased capital stock from \$25,000 to \$50,000.

Ga., Valdosta.—Southern Bell Telephone & Telegraph Co. (main office, Atlanta, Ga.) will erect office building; cost about \$80,000; plans total expenditure of \$100,000 for improvements in Valdosta.

TEXTILE MILLS

Tenn., Dayton.—Hosiery.—Dayton Hosiery Mill Co., capital stock \$75,000, will be organized with Garnett Andrews of Chattanooga, Tenn., as manager; will establish plant driven by electric power; cost of machinery \$30,000.

Tex., Wichita Falls.—Hosiery.—Cornelius Haynie of Oklahoma City, Okla., will build hosiery mill; cost \$60,000.

WATER-POWER DEVELOPMENTS

Mo., Linn Creek.—Niangua Heights Development Co., H. G. Everett, president, will develop water-power for lighting building, etc. (See "Land Developments.")

N. C., Jackson County.—Wolf Mountain Lumber Co., S. E. Chapman, president, Asheville, N. C., purchased timber land and water power along 20 miles of stream on upper waters of Tuckasee River; property lies mainly in Jackson county; later contemplates development of hydro-electric power; Ambursen Hydraulic Construction Co., Boston, Mass., estimates streams will develop 12,000 horse-power. (See "Lumber Manufacturing Plants.")

N. C., Thelma.—Roanoke River Development Co. chartered to purchase properties of Roanoke Navigation & Water Power Co. by W. C. Whitner, Fritz Sitterding and others of Richmond, Va. (Virginia-Carolina Power Co., W. C. Whitner of Richmond, president, previously mentioned as proposing to construct hydro-electric plant developing 25,000 horse-power on Roanoke River.)

Okla., Tulsa.—Ox-Bow Bend Power Co., capital \$100,000, incorporated by C. P. Che-nault, L. D. Lewis, Floyd E. Lewis, J. O. Campbell and L. W. Mason. (J. O. Campbell and associates previously reported as proposing to construct hydro-electric plant on Arkansas River about 60 miles from Tulsa; divert water across neck of land to provide fall of 105 feet, estimated to develop 42,000 horse-power.)

Tex., Seguin.—J. M. Abbott, secretary of Gundalupo Water Power Co., writes that his company has not selected chief engineer and other officers and they will not be announced until July; company contemplates constructing five or six reinforced concrete dams for hydro-electric development. (Previously reported incorporated with \$600,000 capital to develop 4000 electrical horse-power.)

Va., Charlottesville.—Red Land Power Co., for Charlottesville & Albemarle Railway Co., has plans by Thompson & Neff of Norfolk, Va., for steam-power electric plant of 2000 horse-power on Moore's Creek; building to be of concrete, brick and steel; 175-foot stack with inside diameter of 7½ feet. (Recently mentioned.)

W. Va., Charleston.—Miners' Light & Power Co., authorized capital \$250,000, incorporated by J. H. Gaines, A. B. Koontz, G. G. Todd, F. R. Hurlbutt and R. Kemp Morton.

W. Va., Charleston.—Gaugley Power Co., authorized capital \$250,000, incorporated by J. H. Gaines, A. B. Koontz, G. G. Todd, F. R. Hurlbutt and R. Kemp Morton; plans to construct five dams for hydro-electric plant; dam sites at Wood's and Carnifax ferries on Gaugley River and near Carnifax Ferry, Shawver's bridge and Riverside on Meadow River.

WATER-WORKS

Ark., Clarendon.—City will construct water-works and sewerage system; plans not made; proposals may be addressed to F. M. Kennedy. (Recently noted as having issued \$60,000 of water-works and sewerage improvement bonds.)

Ga., Thomaston.—City voted \$15,000 bond issue for improvements to water-works and sewer systems; J. B. McCrary Company, engineer, Third National Bank Bldg., Atlanta, Ga.; Hugh Thurston, Mayor. (Recently mentioned.)

Ky., Flemingsburg.—City is considering construction of water-works; H. A. Kackley, City Clerk.

Ky., Rockport.—Rockport Coal Co., H. L. Tucker, president, states has indefinitely postponed installation of water-works recently noted; on account of some question concerning franchise.

La., Amite.—City is considering construction of water-works; drill artesian well. Address The Mayor.

Md., Baltimore.—Board of Awards let contract to Stewart-Jones Company of Rock Hill, S. C., and Calborne, Johnston & Co., 901 Calvert Bldg., Baltimore (bidding jointly) at \$396,895.65 for excavating, concreting and other work in connection with filtration plant to be built at Lake Montebello; Ezra B. Whitman, Water Engineer, City Hall. (Call for bids lately noted.)

Md., Rising Sun.—Rising Sun Water & Light Co. incorporated; will build standpipe; Hugh T. Downing, president.

Miss., Jackson.—City voted \$100,000 bond issue to construct filtration plant and reservoir and lay 36-inch supply main; total cost \$160,000, additional \$60,000 being now in fund; B. H. Klyce, City Engineer. (Recently noted.)

Miss., Pontotoc.—Pontotoc Electric Light & Power Co., L. E. Price, manager, is considering construction of water-works, to include mains, pumps, additional boiler and overhead steel tank with capacity of 75,000 to 100,000 gallons.

Mo., Owensville.—City voted \$12,000 bond issue to construct water-works. Address The Mayor.

N. C., Goldsboro.—City will construct pumping station and filter plant; work will consist of brick pumping and filter station (mechanical filter) with 1,500,000 gallons capacity, resetting old pumps and about 6000 feet 12-inch force mains; bids received until July 1; Gilbert C. White, engineer, Charlotte, N. C.; J. R. Higgins, Mayor. (See "Machinery Wanted.")

N. C., Mooresville.—Town votes July 8 on \$20,000 bond issue to extend water system. Address Town Commissioners.

N. C., Rocky Mount.—City voted \$135,000 bond issue for water-works, sewers, electric-light plant and paving; L. F. Tillery, Mayor, not W. L. Parrott as recently incorrectly stated.

N. C., Washington.—City will construct water-works, improve electric-light plant and sewerage system; Gilbert C. White, consulting engineer, Charlotte, N. C. (Bond issue of \$130,000 recently noted voted to construct water-works and sewers.)

Okla., Madill.—City voted \$7000 bond issue to improve water-works. Address The Mayor.

S. C., Jonesville.—City defeated bond issue for construction of water-works and electric-light plant; John T. Scott, Mayor. (Recently noted.)

S. C., Lancaster.—City votes June 25 on \$12,000 bond issue to improve and extend water-works. Address The Mayor. (Recently mentioned.)

Tenn., Greenville.—City votes June 3 on \$15,000 bond issue for improvements to water-works; C. H. Jenks, engineer, Union City, Tenn.; W. H. Doughty, secretary Water Commission. (Recently noted.)

Tenn., Nashville.—City defeated \$2,500,000 bond issue to construct reservoir, etc.; will now proceed with previously announced plan of \$200,000 emergency bond issue to repair old damaged reservoir; George W. Stainback, chairman Board of Public Works. (Recently mentioned.)

Tex., Belton.—City votes July 2 on \$24,000 bond issue for water-works extension and improvements. Address The Mayor.

Tex., Franklin.—City Commission contemplates purchasing water and light plants of Franklin Water & Light Co.; if purchased, will issue bonds for enlargements and improvements.

Tex., Waco.—Water Commission, S. J. Quay, superintendent, will expend \$400,000 on water filtration plant previously noted; to include mechanical filter, concrete and brick; cost \$85,000; pumping station, \$25,000; two 5,000,000 high-duty and two 6,000,000 centrifugal pumps; 50,000-gallon standpipe; 3½ miles 24 and 30-inch mains; contracts let for all work except pumping station; probably let contract for latter about June 9; plans by Milton W. Scott, Waco; N. Werenskiold, engineer, Dallas, Tex. (Lately noted as contemplating water-works extension to cost \$25,000.)

Va., Ashland.—City is considering purchase of Ashland Gas, Sewerage & Water Co.'s plant; F. W. Scarborough, civil engineer, submitted report to City Council estimating value of system at \$22,000; estimates include power-house, water and sewerage main and real estate; estimates cost of completing adequate system to cover compact portion of city at \$39,000.

Va., Galax.—Town Council passed ordinance to issue bonds to construct water-

works and sewer system. Address Town Clerk. (Recently mentioned.)

W. Va., Adamson.—City is reported as considering construction of water-works. Address The Mayor.

WOODWORKING PLANTS

Ark., Camden.—Wagons.—Dan O'Connor will install additional equipment in wagon factory; machinery purchased.

Ark., Pocahontas.—Salle Bros. will rebuild burned handle factory; machinery ordered costing \$6000.

D. C., Washington.—Carriages.—W. T. Lawton & Sons, 2704 M St. N. W., purchased site, 130x100 feet, and will erect building; steel and concrete; four stories; cost \$60,000.

Fla., Palmetto.—Crates.—Palmetto Manufacturing Co., capital stock \$100,000, incorporated to manufacture crates, etc.; Chas. Eiseman, president; M. Q. Harrison, vice-president; F. Stevenson, secretary; E. G. Sylvester, general manager.

Ky., Louisville.—Cooperage.—J. Schwarz-walder & Sons will build plant; Arthur Smith, architect, will invite bids.

La., Ponchatoula.—Boxes.—Farmers' Association contemplates building box factory and cane mill; John M. Akers is interested.

La., St. Francisville.—Shingles.—Downs & McKay contemplate, it is reported, building shingle mill.

N. C., High Point.—Furniture.—High Point Furniture Co., M. J. Wrenn, proprietor, is noted to be rebuilt. (See "Machinery asking prices on equipment for plant recently Wanted.")

Tex., Fort Worth.—Wagons.—Fort Worth Wagon Factory will install electric motor-driven machinery in factory on Fostepco Heights; J. F. Shelton, manager.

Va., Fredericksburg.—Fredericksburg Wood-working Co. organized with J. B. Woody president, E. G. Heflin and Joseph M. Goldsmith vice-presidents, Ashton L. Dodd secretary, F. M. Aldridge treasurer, N. B. Mus-selman general manager.

Va., Galax.—Chairs.—Galax Chair Manufacturing Co. organized with Mr. Prevo, president, and J. H. Smith, manager; will establish chair factory to cost \$10,000; estimated daily capacity 500 to 600 chairs. (Recently mentioned.)

BURNED

Ala., Birmingham.—Mrs. K. M. Lucius' residence at 13th Ave. and 20th St. South, owned by J. Thad Mullin; Mrs. A. M. Douglas' residence; total loss, \$15,000.

Ala., Pratt City.—G. W. Scott's residence; loss \$3500.

Ala., Pansey.—Rocky Creek Lumber Co.'s mill, tram engine and portion of shed; estimated loss \$40,000.

Ark., Imboden.—W. M. Jarrett's residence; loss \$4000.

Fla., Apopka.—Consumers' Lumber Co.'s box and crate factory; estimated loss, \$10,000.

Ga., Valdosta.—J. N. Griffin's residence on Central Ave.; loss \$15,000.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Fla., Pensacola.—M. J. Elkan and N. Kaiser will erect apartment store and theater building. (See "Theaters.")

Fla., Stuart.—Mrs. F. Cassidy and Mrs. E. Kimberly will erect apartment-house; 21 suites.

Ky., Hopkinsville.—Hopkinsville Apartment Co. incorporated with \$25,000 capital stock by A. D. Noe, Sr., Hopkinsville; Frank M. Fisher, Paducah, Ky., and A. G. Okain, Nashville, Tenn.; will erect apartment-house in rear Hotel Latham.

La., New Orleans.—Miss May Rochester will erect duplex apartment-house and bungalow at Pine and Maple Sts.

Mo., St. Louis.—Theodore Degenhardt will erect two-story flat at 2010 Victor St.; cost \$4107.

Mo., St. Louis.—E. Witekammer will erect two-story flat at 2237 Harris St.; cost \$4900.

Mo., St. Louis.—Jos. Trenkle will erect two-story flat at 1315-17 N. 20th St.; cost \$5500.

Mo., St. Louis.—Minnie Reinke will erect two two-story flats at 3229-31 Michigan Ave.; cost \$7000.

Ky., Sonora.—James Johnson's residence; loss \$4000.

La., Eunice.—T. Tate Company's building; Louis E. Chaze's store; Arceneaux's store; total loss \$60,000.

La., Bogalusa.—Gloriana Bldg., occupied by H. M. Headley; loss \$5000.

La., Mt. Herman.—J. O. Magee's sawmill and cotton gin; loss \$2000.

La., New Orleans.—Terminal Oil Co.'s refining plant; estimated loss \$60,000.

La., Tangipahoa.—Postoffice and hotel building, owned by G. A. Evans; loss \$8000.

Miss., Clyde.—Lamar Lumber Co.'s saw-mill.

Miss., Clyde.—Lamar Lumber Co.'s saw-mill; estimated loss \$20,000.

Miss., Greenwood.—A. J. Scates' residence; loss \$3500.

Miss., Pascagoula.—R. A. Roberts' saw-mill; loss \$2000.

Mo., Springfield.—Buildings of Charles H. Heer Dry Goods Co., loss \$300,000; Reys Dry Goods Co., loss \$35,000; A. H. Osborne, loss \$10,000; Nathan Clothing Co., loss \$25,000; Queen City Bank of Springfield, loss \$15,000; A. W. Weaver Shoe Co., loss \$20,000; A. Y. Ross, loss \$5000.

Okla., Durant.—Oklahoma Gin Co.'s engine-room and ginhouse; loss \$15,000.

S. C., Rembert.—C. W. Chandler's sawmill; loss \$2000.

S. C., Camden.—Davidson Lumber Co.'s boiler-room.

S. C., Clio.—A. E. Squires' jewelry store and machine shop; total loss \$6000.

Miss., Jonestown.—G. W. Butler's post-office and store building, loss \$4000; Dr. J. T. Longino's garage, store and fixtures, loss \$4000; Planters' Mercantile Co.'s store, loss \$3500.

Tenn., Sardis.—Dr. J. T. Keeton's residence.

Tex., Dallas.—C. A. Dozier's residence at 112 S. Rosemont St.; loss \$7500.

Tex., Fort Worth.—Bewley Mills' grain elevator; estimated total loss \$125,000.

Tex., Houston.—International & Great Northern Railway's roundhouse; estimated loss, \$3000.

Tex., Orange.—F. W. Lockfield's residence on Market St., owned by Mrs. T. Bancroft; loss \$3000.

Tex., Wichita Falls.—Miller Drug Co.'s building, owned by J. M. White, West Point, Miss., loss \$18,000; Taylor Marchman's building, loss \$14,000; J. L. Jackson's building damaged, loss \$8000; S. H. Hodge's building damaged, loss \$8000.

Va., Newport News.—John W. Daniel high school; loss \$50,000. Address The Mayor.

Va., Petersburg.—John O'Connor's three-story brick store at Sycamore and Franklin Sts., occupied by R. H. O'Kennon.

W. Va., Wheeling.—Mrs. Mary McGuigan-Croup's residence at Mt. de Chantal; loss \$4000.

Mo., St. Louis.—Mrs. J. Sanguinet will erect two-story tenement-house at 2905-08 De Fonty St.; cost \$4500.

Mo., St. Louis.—Phillip Selbel will erect addition to tenement-house at 255 Iowa St.; cost \$2500.

Mo., St. Louis.—Leo K. Millerger, 3426 California Ave., will expend \$4500 to erect tenement-house; 24x67 feet; ordinary construction; gravel roof; cost of heating and lighting \$457; plans and construction by owner. (Recently noted under "Dwellings.")

Mo., St. Louis.—Walter E. Nichols will erect two-story stone tenement-house at 3622 Bamberger St.; cost \$4000.

Mo., St. Louis.—M. Todt will erect apartment-house at 5405 N. Broadway; two stories; cost \$3400.

Mo., St. Louis.—Trade Realty Co., F. J. Cornwell, president, will erect two apartment buildings at 5852-56 Barmier Ave.; cost \$27,000.

Mo., St. Louis.—Mohawk Realty Co., Henry Tietjens, president, will erect two apartment-houses at 3618-26 Lafayette Ave.; six five-room suites; sun porches; cost, including sites, \$25,000 to \$30,000.

Mo., St. Louis.—Frank Kohout will erect

two-story apartment-house at 1842-44 Russell St.; cost \$5300.

Mo., St. Louis.—William Moxey will erect two-story flat at 2338-40 Garrison Court; cost \$1600.

Mo., St. Louis.—Mary Morrell will erect two-story flat at 4149 Farlin St.; cost \$4500.

Mo., St. Louis.—P. Well will erect apartment-house on Garfield Ave.

S. C., Columbia.—W. A. Keenan has plans for apartment-house and store. (See "Stores.")

Tenn., Nashville.—Max Bloomstein will erect store and apartment building. (See "Stores.")

Tenn., Nashville.—Robert Elliott will erect brick flat at 203 Sixth Ave.; cost \$8000.

Tex., Austin.—G. A. Baha has plans by Leslie Iredell for apartment-house on East 7th St.; three stories; brick; steam heat; 67x128 feet.

Tex., Houston.—A. W. Kerr has plans by Jones & Tabor, Houston, for apartment-house on Travis St.; two stories; stucco; cost \$10,000.

Tex., Houston.—E. Hoencke will erect three-story store and apartment building at Dallas and Smith Sts.; brick; cost \$25,000; plans by Telch & Glendon, Houston.

Va., Petersburg.—Plans and specifications for Sycamore Apartments can be had at office of A. T. Shepherd and Charles K. Bryant, architects, 406 Park Bldg., Richmond, Va., and at office of Pyle & Co., Inc., Petersburg, June 16; general and subcontractors desiring to bid required to deposit certified check (payable to architects) for \$25. (Recently noted.)

ASSOCIATION AND FRATERNAL

Ark., Dermott.—Knights of Pythias have plans by R. W. Whitehead, 501½ Main St., Little Rock, Ark., for lodge building; cost \$8000.

Ga., Atlanta.—Independent Benevolent Order will erect building at 161 Bell St. for stores, office and auditorium; three stories; brick; cost \$12,500.

Ga., Phenix.—Woodmen of the World Lodge, Dr. R. S. Walkins, president, will erect lodge building.

Ky., Paris.—Young Men's Christian Association will inaugurate campaign June 15 for fund to erect building.

La., New Orleans.—Phi Delta Theta Fraternity will erect fraternity-house at State and Clara Sts.; stucco; tiled roof; plans by Walter Keenan, New Orleans.

La., New Orleans.—Young Men's Christian Association, A. T. Terry, president, will erect 40-room dormitory and remodel building on St. Charles St.

La., Thibodaux.—Knights of Columbus will erect building.

Md., Baltimore.—Baltimore Lodge No. 70, Loyal Order of Moose, has plans by J. E. Laferty, 11 Pleasant St., Baltimore, for clubhouse at 410 W. Fayette St.; three stories and basement; brick and stone; 54x133 feet; auditorium to seat 1000; roof garden; walls to support additional stories; cost about \$75,000. (Recently noted.)

Md., Baltimore.—Benevolent Protective Order of Elks, 307 W. Fayette St., will erect clubhouse to replace present structure; cost about \$300,000.

N. C., Asheville.—Benevolent Protective Order of Elks will erect lodge building on Haywood St.; 60x75 feet; three stories; pressed stone and brick; to contain cafe, billiard and lodge-rooms; auditorium on third floor.

N. C., Asheville.—Independent Order of Odd Fellows is having plans prepared by C. H. Chunn, Asheville, for building; 59x123 feet; three stories and basement; first and second floors for garage; shale brick; rubble stone foundation; electric elevator.

N. C., Charlotte.—Masonic Temple Association will consider plans June 14 for Masonic Temple at Tryon and 2d Sts.; four stories; white pressed brick; cost about \$85,000. (Recently noted.)

N. C., Durham.—Benevolent Protective Order of Elks is having plans prepared by Milburn Heister & Co., Union National Bank Bldg., Washington, D. C., for lodge building; cost about \$40,000. (Recently noted.)

N. C., Winston-Salem.—Independent Order of Odd Fellows will erect one or two additional stories to Rosenbacher & Broz. building on Trade St. for lodgerooms.

Tenn., Knoxville.—Bell Lodge, Knights of Pythias, has plans by W. H. Gildard, Knoxville, for lodge building; three stories; brick; 30x65 feet; cost \$4500.

BANK AND OFFICE

Ala., Mobile.—Mrs. M. F. Kirkbride is reported to erect stores and offices at St. Francis and Joachim Sts. (See "Stores.")

D. C., Washington.—Elwood O. Wagenhorst, Bond Bldg., will erect store and office building. (See "Stores.")

Fla., Orlando.—N. P. Yowell and associates have plans for store and office building. (See "Stores.")

Ga., Atlanta.—Independent Benevolent Order will erect building for offices, etc. (See "Association and Fraternal.")

Ky., Hardinsburg.—Bank of Hardinsburg opens bids about June 20 to erect bank and office building; 28x70 feet; two stories and basement; basement 35x28 feet; brick; hot-water heat; carbide gas lighting; metal roof; cost \$6000; plans by Thomas J. Nolan, Realty Bldg., Louisville, Ky. (Recently noted.)

La., Gretna.—Southern Cotton Oil Co., Whitney-Central Bank Bldg., is erecting office building.

Mo., St. Louis.—Commercial Building Co. will expend \$7000 to repair offices at 516-18 Olive St.

Mo., St. Louis.—St. Louis Dressed Beef Co. will erect addition to office at 2911 Papin St.; cost \$3000.

Tenn., Memphis.—Ike Block will remodel building for stores and offices. (See "Stores.")

Tex., Elysian Fields.—Guaranty State Bank of Elysian Fields will erect brick bank building.

Tex., Gatesville.—O. F. Wells and J. R. Brown open bids June 15 to erect office and store building; 90x74 feet; mill construction; electric lighting; composition roof; cost \$26,000; plans by Roy E. Lane, Waco, Tex., to whom proposals may be addressed. (Recently noted.)

Tex., Greenville.—Graham Bros. will let contract June 15 to 20 to erect office and store building recently noted. (See "Stores.")

Tex., Galveston.—Galveston, Houston & Henderson Railroad, J. H. Hill, manager, will erect yard office in west end railroad yards.

W. Va., Charleston.—Kanawha National Bank will erect building; steel and terra-cotta with enameled front; including Frankenberg Bldg. adjoining, will be 67x125 feet; 12 stories; structures to be uniform; first story 25 feet high; upper stories of both buildings for offices; four lower floors of Frankenberg structure for store; double passenger elevator; cost of bank portion, \$125,000 to \$150,000.

W. Va., Gary.—Cashier of Gary National Bank receives bids until June 12 to erect bank building; plans and specifications on file at bank and E. L. Shuffelbarger, architect, Bluefield, W. Va., or may be had on deposit of \$10; building 35x45 feet; two stories and basement; stone construction; hot-water heat; Spanish tile and metal roof.

W. Va., Wheeling.—J. E. Miller is reported as considering erection of office building at 1515 Main St., to be occupied by Steenros Auto Supply Co.

CHURCHES

Ala., Unton town.—Presbyterian church, Walter J. White, chairman building committee, Planters-Merchants' Bank Bldg., will expend \$18,000 to erect building; 60x100 feet; brick; furnace; asbestos slate roof; plans by Lawrence B. Valk, 424 Stimson Block, Los Angeles, Cal.; bids received separately or as whole. (Recently noted to receive bids until June 1.)

Ark., Little Rock.—E. D. McCabe will erect one-story concrete church building at 1022 Arch St.; cost \$10,000.

Ky., Louisville.—Clifton Evangelical Church will erect addition to church building at Payne and Rastetter Sts.; frame construction; cost \$3000. Address The Pastor, Clifton Evangelical Church.

Ky., Settle.—Big Springs Baptist Church, Rev. N. R. Tow, pastor, Scottsville, Ky., has plans for church building.

Miss., Lumberton.—St. Alban's Episcopal Mission will erect chapel. Address The Rector, St. Alban's Episcopal Mission.

Mo., Kansas City.—City Church Extension Society of Methodist Episcopal Church will erect Nathaniel Dickey Memorial Church at 57th St. and Wornall Rd.

Mo., St. Louis.—Walnut Park Methodist Episcopal Church will erect one-story stone church building at 8403-8405 Emma St.; cost \$6000. Address The Pastor, Walnut Park Methodist Episcopal Church.

N. C., Dunn.—Methodist Episcopal Church, A. L. Newberry, chairman building committee, receives bids until July 1 to erect building; plans and specifications at office of

Wheeler & Stern, architects, Charlotte, N. C., and at office of building committee. (Previously noted.)

Okla., Kingston.—Methodist congregation plans to erect building; cost \$5000. Address The Pastor, Methodist Church.

S. C., Columbia.—Second Baptist Church, Rev. W. D. Wakefield, pastor, will erect church building; brick.

S. C., Greenville.—Lutheran church will erect building; 45x110 feet; granite walls; slate roof; cost \$15,000; plans by F. H. & J. G. Cunningham of Greenville; Rev. C. L. Miller, pastor.

S. C., Kershaw.—Methodist church, Rev. S. D. Bailey, pastor, will erect building; Dr. W. C. McDowell, chairman of building committee.

Tex., Dallas.—Oak Cliff Methodist Church will erect parsonage; also having plans prepared for \$40,000 church building. Address The Pastor, Oak Cliff Methodist Church.

Tex., Gatesville.—Methodist church will expend \$13,000 to erect building; 60x130 feet; two stories and basement; ordinary construction; forced air system of heating; electric lighting; clay tile roof; plans by Roy E. Lane, Waco, Tex.; bids opened June 6. (Recently noted.)

Va., Richmond.—Randolph Baptist Church opens bids about August 1 to erect church building and Sunday-school addition; main building 51x90 feet and annex 30x50 feet; ordinary construction; hot-air heat; electric lighting; composition or tin roof; cost \$15,000; plans by Herbert L. Cain, 103 Main Street Bank Bldg., Richmond. (Recently noted.)

Va., Richmond.—Fairmount Avenue Methodist Church, Rev. E. V. Carson, pastor, plans to erect building.

W. Va., Fayetteville.—Presbyterian Church, Rev. Fred W. Gray, pastor, will erect building.

W. Va., Wheeling.—First Unitarian Church, Rev. Howard A. Pease, pastor, has plans by E. B. Franzheim, Schmulbach Bldg., Wheeling, for building; details not determined; proposals may be addressed to John H. Renard, Schmulbach Bldg. (Recently noted.)

CITY AND COUNTY

Ga., Albany.—Fire Department.—City will vote July 24 on bond issue for improvements to fire department, etc.; H. A. Tarver, Mayor.

Ga., Columbus.—Hospital.—City postponed election from July 5 and will vote later on \$60,000 bond issue to purchase site and erect hospital; M. M. Moore, City Clerk. (Recently noted.)

La., De Ridder.—Jail.—Stevens & Nelson Company, New Orleans, La., is preparing plans for Beauregard parish courthouse and jail buildings. (See "Courthouses.")

La., Oberlin.—Jail.—Allen Parish Police Jury, R. C. Bond, president, receives bids until July 2 for construction of jail in accordance with plans and specifications (No. 287) by E. W. Phillips, Lake Charles, La. (Recently noted.)

Md., Baltimore.—Barns, etc.—City will build cow barn at Bayview Asylum, 31x95 feet; feed barn, 36x58 feet, and bungalow, 36x66 feet; wood construction; bungalow to have steam heat; electric lighting; asphalt slag or four-ply asbestos and shingle roofs; cost \$12,000 and \$3500, respectively; plans by Parker, Thomas & Rice, Union Trust Bldg., Baltimore, Md. (Recently noted to receive bids until June 11.)

Mo., Bevier.—City Hall.—City voted bond issue to erect city hall and for municipal improvements. Address The Mayor.

Tex., Greenville.—Market.—City voted \$16,000 market square site purchase and improvement bonds. Address The Mayor.

Tex., Corpus Christi.—Jail.—Neuces county will vote July 19 on \$250,000 bond issue to erect courthouse and jail. Address County Commissioners. (Recently noted.)

Tex., Dallas.—Zoo.—City, W. M. Holland, Mayor, will expend \$7000 to \$10,000 to construct lion's den and bear pits at zoo.

Tex., San Antonio.—Hospital, Fire and Police Stations.—City will vote in July on \$125,000 bond issue for city hospital, \$100,000 for central fire and police stations, and \$50,000 for additional fire stations. Address The Mayor. (See "Road and Street.")

W. Va., Wayne.—Infirmary.—John G. Lambert, County Commissioner, will receive bids until July 10 to erect (except gaspiping, plumbing, heating and drainage) infirmary building for Wayne county; plans and specifications may be seen at Wayne county courthouse or obtained at office of J. R. Gleske, architect, Ceredo, W. Va.

COURTHOUSES

Ark., Dardanelle.—Yell County Commissioners are having plans prepared by F. W. Gibb, Little Rock, Ark., for courthouse; will award contract latter part of June.

Fla., West Palm Beach.—Palm Beach County Commissioners will select architect July 1 to furnish plans and superintend construction of courthouse; cost \$110,000 to \$120,000; architects are invited to send prospectus, floor plans, etc., to George O. Butler, Clerk.

La., De Ridder.—Stevens & Nelson Company, Liverpool & London & Globe Annex, New Orleans, La., is preparing plans for Beauregard parish courthouse and jail buildings; former to be fireproof; stone and terra-cotta trimmings; cost about \$150,000; latter to be of monolithic construction; steel work to be toolproof; cost about \$25,000; both structures to be equipped with electric lights, steam heat, telephones, hot and cold water, shower and tub baths, lavatories, etc.

Tex., Athens.—Henderson county will expend \$85,000 to erect courthouse; 12x112 feet; three stories and basement; fireproof construction; steam heat; gravel roof; plans by L. L. Thurman & Co., Dallas, Tex. (Recently noted to receive bids until June 9.)

Tex., Beaumont.—Jefferson county has plans by A. Babin of Beaumont, to whom proposals may be addressed, for additional vaultroom; 32x40 feet; fireproof construction; cement roof; cost \$12,000; bids opened about June 14. (Recently noted.)

Tex., Corpus Christi.—Neuces county will vote July 19 on \$250,000 bond issue to erect courthouse and jail. Address County Commissioners. (Recently noted.)

Va., Pearisburg.—Giles County Commissioners will receive bids until June 24 to remodel courthouse; cost about \$12,000; plans by A. J. Bryan, Louisville, Ky.

DWELLINGS

Ala., Birmingham.—H. Maloney will erect two-story brick dwelling; cost \$5500; day labor.

Ala., Birmingham.—H. J. Malone, agent, will erect two-story brick-vener dwelling at Cleveland Station; cost \$5000; day labor.

Ala., Gadsden.—S. C. Gentry has plans by Mr. Tye for two-story residence.

Ark., Eldorado.—M. V. Rodgers, Elliott, Ark., will erect \$5000 residence.

Ark., Little Rock.—W. L. Phillips, 719 Battery St., has plans by Theo. M. Sanders, Little Rock, for \$9000 residence; two stories.

Ark., Little Rock.—Mrs. A. Bloom has plans by Theo. M. Sanders, Little Rock, for residence; cost \$5000.

Ark., Russellville.—J. W. White is having plans prepared by Frank M. Haisdell, Little Rock, Ark., for residence.

D. C., Washington.—F. C. Brinkley, 1304 Deland Ave., has plans by W. R. Talbott, 1314 F St. N. W., Washington, for dwelling; 26x38 feet; frame; hot-water heat; gas and electric lighting; slate roof; cost \$4000; construction by owner.

Fla., Lakeland.—F. A. Grether will erect residence on Lake Morton.

Fla., Stuart.—John Michaelis will erect bungalow.

Fla., Stuart.—D. E. Phillips will erect three cottages.

Fla., Stuart.—G. W. Thomas is reported as to erect rent house.

Fla., Valrico.—Will C. Schuman of C. B. Norton Wholesale Jewelry Co., Kansas City, Mo., will erect residence.

Ga., Atlanta.—Anderson Bros. Company will erect 10 six-room dwellings; gas and electric lighting; cost \$28,000; day labor. (Recently noted.)

Ga., Atlanta.—S. T. Taylor will erect one-story frame dwelling on W. 10th St.; cost \$3000.

Ga., Atlanta.—J. M. Skinner will erect dwelling at Cleburn and Severe Aves.; cost \$6000.

Ga., Savannah.—J. R. Barfield will probably erect residence on 39th St.

La., New Orleans.—T. Jordan will erect store and residence. (See "Stores.")

La., New Orleans.—Miss May Rochester will erect bungalow. (See "Apartment-Houses.")

Ga., Savannah.—Henry Levy will erect three two-story dwellings in Middle Oglethorpe Ward on Ann St.

Ga., Savannah.—Mrs. L. A. Hawley will erect two-story frame dwelling on Best St.

Ga., Savannah.—J. B. Schultz will erect two-story frame dwelling in Lester ward.

Ky., Louisville.—M. L. Marshall will erect frame dwelling in Crescent Hill; cost \$3000.

Ky., Louisville.—F. H. Miller will erect three frame cottages at 1717 Bolling St., 666 Grainger Ct. and 2517 Cane Run Rd.; cost \$4500.

Ky., Louisville.—M. W. Lewis, Jr., will erect frame dwelling at 2437 Ransdell Ave.; cost \$4500.

Ky., Louisville.—Lawrence Jones of Paul Jones & Co. is reported as contemplating erection of residence. (Mr. Jones' residence at Anchorage, Ky., recently reported burned at loss of \$20,000.)

La., New Orleans.—A. Elmer will erect two-story frame residence on Milan St.; cost \$5000.

La., New Orleans.—Eugene Finkener will erect two-story residence; cost \$5200.

La., New Orleans.—Mrs. A. S. Dyer will erect two-story residence; cost \$7500.

La., New Orleans.—Mrs. Scheeger will erect frame residence on Rosemary Place near Taylor Ave.; cost \$3000.

La., New Orleans.—Miss Mary Scanlan will erect double two-story residence on Dublin St.; cost \$3200.

Md., Baltimore.—Murray & Haynes, 1709 N. Ellamont St., will erect residence at Mont Alto; two and a half stories; frame.

Md., Baltimore.—E. J. Gallagher Realty Co., 602 S. Belnord Ave., will erect number of residences on McElderry St. near Lakewood Ave.

Md., Baltimore.—Dr. W. T. Willey, 1903 N. Calvert St., is having plans prepared by Edward L. Palmer, Jr., 408 Roland Ave., Roland Park, Md., for residence in Guilford.

Md., Baltimore.—Joseph L. White Realty Co., 2509 E. Monument St., will erect 28 dwellings in 600 block of Decker Ave.; iron-spot brick; 13x16 feet; cost \$28,000; plans by Chas. C. Broring, 9 N. Potomac St., Baltimore, Md.

Md., Baltimore.—Rochester-Kirkness Realty Co., Section O, Wholesale Fish Market, has plans by C. W. McKewin, 337 S. Gilmer St., Baltimore, for 24 dwellings on Twoly St.; two stories; cost \$25,000.

Md., Baltimore.—Provident Realty Corporation, Garrison and Piedmont Aves., has plans by Henry J. Tinley, 312 N. Charles St., Baltimore, for two cottages; one on Roslyn Ave. near Bateman Ave.; frame construction; 28x34 feet; cost \$4000; other at Elsinore Ave. near Carlisle Ave.; one and a half stories; 27x47 feet; garage in rear 12x18 feet.

Md., Baltimore.—James Keely, Edmondson Ave. and Ashburton St., purchased site on Bloomingdale Rd. and will erect number of two-story dwellings.

Mo., St. Louis.—Annie Boughton will erect two-story dwelling at 5723 Waterman Ave.; cost \$4500.

Mo., St. Louis.—C. A. Pitman will erect two two-story dwellings at 4248-50 Cote Brillante; cost \$7800.

Mo., St. Louis.—W. C. Sipple, president of Sipple Adjustment Co., will erect residence.

Mo., St. Louis.—George B. Stapf will erect two-story dwelling at 4042 Magnolia St.; cost \$3275.

Mo., St. Louis.—A. C. Leisner will erect two-story dwelling at 5928 Waterman Ave.; cost \$5000.

Mo., St. Louis.—F. R. Witte will erect two-story dwelling at 4126 Farlin St.; cost \$4000.

Mo., St. Louis.—F. Barnett will erect two two-story dwellings at 7028-30 Dale St.; cost \$9000.

Mo., St. Louis.—Harry B. White will erect two one-story dwellings at 4429-31 Wallace St.; cost \$3400.

N. C., Greensboro.—D. A. Walters opens bids about July 1 to erect dwelling; nine rooms; mill construction; hot-water heat; electric lighting; slate roof; plans by J. H. Hopkins, Greensboro. (Recently noted.)

N. C., Greensboro.—H. P. Leak opens bids in about 10 days to erect dwelling; two stories; eight rooms; steam or hot-water heat; shingle roof; plans by J. H. Hopkins, Greensboro. (Recently noted.)

N. C., Henderson.—Dr. Ed. Fenner will erect residence on West Garnett St.

N. C., Winston-Salem.—P. H. Hanes, Jr., will erect residence on Glade St.

N. C., Winston-Salem.—Dr. R. O. Apple has plans by W. C. Northrup, Winston-Salem, for dwelling; English colonial style.

N. C., Winston-Salem.—Charles Stewers is having plans prepared by W. C. Northrup, Winston-Salem, for residence on Southside Hill.

N. C., Winston-Salem.—Realty Exchange, first floor Masonic Temple, organized with George D. Hodgkin president, John L. Win-

bish vice-president, G. H. C. Stoney secretary-treasurer; will erect number of pebble-dash dwellings.

Okla., Tulsa.—C. H. Justice will erect one one-story and one two-story frame dwellings; cost \$3000.

Okla., Tulsa.—G. B. Stotts will erect two-story frame dwelling on S. Cheyenne Ave.; cost \$3750.

S. C., Charleston.—J. E. Schachte will erect dwelling at 101 Benjamin St.; cost \$5000.

S. C., Charleston.—Benjamin H. Rutledge will erect dwelling at 139-141 Tradd St.; cost \$12,500.

Tenn., Chattanooga.—R. H. Hunt will erect two six-room frame dwellings in Rossville; cost \$4000.

Tex., Dallas.—Oak Cliff Methodist Church will erect parsonage. Address the Pastor, Oak Cliff Methodist Church. (See "Churches.")

Tex., El Paso.—J. S. Morris will erect bungalow on N. Campbell St.; cost \$3000.

Tex., El Paso.—Mayfield Building & Improvement Co. will erect two-story seven-room and two two-story six-room dwellings on Montana St., and three two-story five-room brick dwellings on Rio Grande St.; furnace; shingle roof; cost \$3875, \$3525 and \$2975, respectively; construction by owners. (Recently noted.)

Tex., Houston.—Russell Brown Co. will erect ten-room residence on Yoakum St.; cost \$3000.

Tex., Houston.—Burnett Ross is having plans prepared by Jones & Tabor, Houston, for double dwelling; colonial style; 10 rooms.

Tex., Houston.—Dr. T. L. Blaney has plans by Green & Finger, Houston, for residence; two stories; brick and stucco.

Tex., Houston.—W. J. Oliver will erect residence on Bremond St.; cost \$4000.

Va., Richmond.—G. C. Dula will erect residence in Westmoreland Place.

Va., Richmond.—A. L. Hawse will erect residence in Westmoreland Place.

Va., Richmond.—Oliver J. Sands will erect residence in Westmoreland Place.

GOVERNMENT AND STATE

Ark., Booneville.—Sanatorium.—Arkansas State Tuberculosis Sanatorium, Dr. C. P. Meriwether, secretary, Little Rock, Ark., will expend \$12,000 to \$15,000 to erect hospital 30x300 feet, laundry building 25x75 feet and boiler-house 25x35 feet; mill construction; steam heat; shingle roof; plans by L. Klingensmith, Fort Smith, Ark.; bids opened June 9. (Recently noted.)

Ga., Cartersville.—Postoffice.—Treasury Department, Office of Oscar Wenderoth, supervising architect, Washington, D. C. Proposals received until July 21 for construction (including plumbing, gaspiping, heating apparatus, electric conduits and wiring, interior lighting fixtures and approaches) of postoffice; one story and basement; ground area about 4400 square feet; stone, stucco and terra-cotta facing; tile roof; drawings and specifications obtainable from custodian at site, or at this office, at discretion of supervising architect.

Mo., Brookfield.—Postoffice.—Treasury Department, Oscar Wenderoth, supervising architect, Washington, D. C., opened bids to erect postoffice; Rogers & Kiser, Chicago, Ill., are lowest bidders at \$60,990 for limestone and at \$61,290 for sandstone construction. (Previously noted.)

Mo., Poplar Bluff.—Postoffice.—Treasury Department, office of Oscar Wenderoth, supervising architect, Washington, D. C. Proposals received until July 15 for construction (including mechanical equipment, interior lighting fixtures and approaches) of postoffice; one story and basement; ground area 5300 square feet; non-fireproof construction (except first floor); drawings and specifications obtainable from custodian at site and at this office at discretion of supervising architect.

N. C., Winston-Salem.—Postoffice.—Treasury Department, Oscar Wenderoth, supervising architect, Washington, D. C., opened bids to erect postoffice building; Boyle-Robertson Construction Co., Union Trust Bldg., Washington, D. C., is lowest bidder at approximately \$170,000. (Recently noted.)

HOTELS

Ala., Huntsville.—Quincy B. Love, Clarksville, Tenn.; Wm. F. Struve, Huntsville, Ala., and associates are reported as promoting erection of hotel; 50 rooms; cost \$100,000.

Fla., Tarpon Springs.—Tarpon Springs

Hotel Co., I. B. Read, vice-president, rejected all bids to erect tourist hotel; 90x165 feet with "L" 30x42 feet; 106 guestrooms; mill construction; shingle and asbestos roof; cost \$50,000; cost of elevator \$2000; plans by Bonfoey & Elliott, Tampa; will receive sub-bids on plumbing, wiring, heating, elevator, etc. (Recently noted.)

Fla., Winter Haven.—W. G. Cason will erect \$10,000 brick hotel; is having plans prepared by Seymour & Craig.

Md., Cumberland.—Joseph H. Reinhart is interested in organization of company to erect and equip hotel at Baltimore, Canal and Mechanic Sts., for which plans are being prepared by A. Bernard Thumel, Cumberland; "L" shape; 28x100x140x40 feet; six stories; concrete, brick and steel construction; 140 bedrooms; all rooms on first three sleeping floors equipped with private baths; two passenger elevators. Mr. Thumel writes Manufacturers Record: "Present plans of hotel tentative; cost \$300,000."

Md., Winona Cliffs (not a postoffice).—Chautauqua Association, organized by Rev. John Roach Straton (general manager), 9 W. 29th St.; John R. Bland, Calvert and German Sts.; Theodore K. Miller, 26-34 Hopkins Pl., all of Baltimore, Md., and others, will erect chautauqua auditorium and hotel building at Winona Cliffs on Round Bay.

Mo., Poplar Bluff.—George B. Mann, Little Rock, Ark., is preparing plans for \$100,000 hotel.

Mo., St. Louis.—Harry W. Blodgett, representing New York capitalists, is reported as negotiating lease for site at 12th and Olive Sts. to erect hotel; 10 stories; 25x125 feet; 700 rooms, three cafes, roof garden, etc.; cost \$1,500,000; plans by Herman Lee Meader, 178 Fifth Ave., New York; negotiations reported pending with Ritz-Carlton Hotel Co., New York, for management of hotel.

N. C., Bessemer City.—H. C. Froneberger has plans by Sayre & Baldwin, Anderson, S. C., for hotel; day labor. (Recently noted.) S. C., Chick Springs.—J. Thomas Arnold and associates purchased Chick Springs property and will erect hotel, etc. (See "Land Development.")

S. C., Darlington.—Hotel Melrose Co. incorporated by C. W. Hewitt, T. E. Sligh and S. Vaughan to erect \$50,000 hotel.

Tenn., Gibson.—John E. Campbell, Humboldt, Tenn., it is reported, will erect hotel.

Tex., Gilmer.—Gilmer Hotel Co. has plans by C. G. Lancaster, Marshall, Tex., for hotel; 118x90 feet; ordinary construction; composition roof; cost \$20,000; cost of heating plant, \$2000; date of opening bids not determined. (Previously noted.)

Tex., Yoakum.—W. A. Fink will erect 26-room rooming-house at Irving and W. Gonzales Sts.

Va., Coeburn.—Dr. J. M. Dougherty, Nickelsville, Va., it is reported, purchased farm of 110 acres and will develop summer resort, erect hotel, etc.

Va., Fredericksburg.—Fredericksburg Hotel Co., R. Conroy Vance, president, is having plans prepared by Philip N. Stern, Fredericksburg, for hotel; 80x93 feet; four stories and basement; reinforced concrete; steam heat; elevator, etc. (Company recently noted incorporated with capital stock of \$30,000.)

W. Va., Logan.—Logan Hotel Co. incorporated with \$15,000 capital stock by B. L. Hutchinson, W. C. McCall, D. A. Daniels and others.

MISCELLANEOUS

Ala., Birmingham.—Grandstand, etc.—Rick Woodward will increase seating capacity of Rickwood Park; roof present bleacher seats near right field, construct box seats in front of same, erect section to right field bleachers to contain more than 1000 seats, etc.; provide total seating capacity of about 5500.

Ark., Hot Springs.—Bathhouse.—Mrs. Logan H. Roots is having plans prepared by George R. Mann, Little Rock, Ark., for improvements to Hale Bathhouse; cost \$50,000.

D. C., Washington.—Memorial.—Lincoln Memorial Commission, William Howard Taft, chairman, New Haven, Conn., approved plans by Henry Bacon, 160 Fifth Ave., New York, for Lincoln Memorial on banks of Potomac River; Greek temple style; cost \$2,000,000. (Previously noted.)

Fla., Sarasota.—Bathhouses.—Harry L. Higzel will erect 40 bathhouses at Siesta; will equip with showers, diving boards, toboggan slides, etc.

Ky., Henderson.—Hospital.—H. C. Mason is chairman and Spalding Trafton, secretary and publicity manager of committee to inaugurate campaign for \$30,000 to erect city hospital.

Ky., Louisville.—Sheds.—Mengel Box Co. will erect three lumber sheds at 12th and Dumesni Sts.; cost \$7000.

Ky., Middlesboro.—Judge J. L. Manning is chairman of committee to solicit fund of \$7000 to erect building for Salvation Army.

Md., Winona Cliffs (not a postoffice).—Auditorium.—Chautauqua Association, Rev. J. R. Straton, general manager, 9 W. 29th St., Baltimore, Md., will erect auditorium, etc. (See "Hotels.")

Miss., Jackson.—Fair.—Mississippi State Fair Association will expend \$7000 to construct grandstand and race track; former, 53x306 feet; mill construction; electric lighting; gravel roof. (Recently noted.)

Mo., St. Louis.—Stable.—T. Guertkin will erect two-story stable at 3201 Vista St.; cost \$4600.

Mo., St. Louis.—Hospital.—St. Luke's Hospital has plans by LaBeaume & Klein, St. Louis, for addition to hospital; four stories; gray and mottled brick; glazed porch; 40x128 feet; construction similar to present structures; cost \$175,000.

N. C., Wadesboro.—Sanitarium.—Anderson Sanitarium will erect building to accommodate 25 patients; install elevator, dumb-waiter, call bell system, etc.; cost \$15,000 to \$25,000; plans by Sayre & Baldwin, Bleckley Bldg., Anderson, S. C.; bids opened for construction (including heating, plumbing and wiring) June 10; R. D. Ross, chairman building committee. (Recently noted.)

S. C., Kershaw.—Stables.—J. M. Carson Company will erect stables, etc. (See "Warehouses.")

Tenn., Memphis.—Diocese of Tennessee awarded contract to W. B. Edwards to erect building at 750 Jackson Ave.; cost \$7800.

Tex., Temple.—Pavilion, etc.—J. M. Sampson, F. E. Zellner and associates are interested in organization of company to erect pavilion, bathhouses and other structures. (See "Miscellaneous Enterprises.")

RAILWAY STATIONS, SHEDS, ETC.

Fla., Pensacola.—Gulf, Florida & Alabama Railway Co., G. A. Berry, chief engineer, will probably erect passenger station and office building; two stories; 45x150 feet; brick walls stuccoed; reinforced concrete floors; cost \$50,000. (Recently noted.)

Fla., Fort Meade.—Atlantic Coast Line Railway Co., E. B. Pleasants, chief engineer, Wilmington, N. C., will, it is reported, erect passenger station.

Md., Salisbury.—New York, Philadelphia & Norfolk Railroad, W. A. Patton, president, Philadelphia, Pa., and Baltimore, Chesapeake & Atlantic Railway, A. C. Shand, chief engineer, Philadelphia, Pa., will erect union depot; brick; limestone trimmings; one story, with ceiling rise of 32 feet over main lobby, which will be 65x35 feet; two retiring-rooms 30 feet square; 400 running feet of platform; cost \$50,000. (Previously noted.)

Tenn., Newport.—Southern Rwy. Co., B. Herman, chief engineer, 1300 Pennsylvania Ave. N. W., Washington, D. C., will, it is reported, erect passenger station; brick.

Va., Danville.—Danville & Western Railway Co. has plans by Pritchett, Heard & Caldwell, Postal Telegraph Bldg., Danville, for freight and passenger depot; former, 60x90 feet; latter, 42x66 feet; two stories; office on second floor; brick construction; rolling steel doors for freight house.

W. Va., Charleston.—Wheeling Traction Co. plans to enlarge carhouse.

SCHOOLS

Ala., Auburn.—Trustees of Alabama Polytechnic Institute appropriated \$5000 to erect president's mansion, \$15,000 for hospital, \$10,000 for boiler-room and \$5000 for additional equipment in machinery building.

Ala., Daphne.—Daphne State Normal School contemplates erecting dormitory; plans not determined. Edward Quincy Norton may be addressed.

Ala., Mobile.—City will vote July 9 on \$150,000 bond issue for school improvements; to include purchase of site at Broad and Augusta Sts. and erection of \$34,000 school; purchase of site on Old Shell Rd. and erection of \$15,330 school, erection of \$25,000 building to replace Raphael Semmes school, rebuilding of Barton Academy, etc.; Board of Education, Harry T. Hartwell, president, will have plans prepared by L. H. McNeill, board's supervising architect, for structures to contain 14, 12 and 8 rooms. (Recently noted.)

Ark., Argenta.—Shorter College has plans by Clyde Ferrell, Little Rock, Ark., for dormitory; three stories; brick; 60 bedrooms on upper floors; four classrooms and chapel on first floor; cost \$25,000. (Recently noted.)

Ark., Russellville.—Trustees of Second District Agricultural School, J. B. Payne, secretary, opened bids to erect two dormitories; Scarlett & Jones, Russellville, are lowest bidders; plans by Frank M. Blaisdell, Southern Trust Bldg., Little Rock, Ark. (Recently noted.)

Fla., Lemon City.—School Trustees, J. G. Dupuis, chairman, contemplate erecting concrete school building; cost \$25,000.

Fla., De Funiak Springs.—S. K. Gillis, chairman Board of Trustees of Palmer College, will receive bids until June 29 to erect two-story brick dormitory; plans and specifications at office of Willis & Stout, architects, 617-19 Blount Bldg., Pensacola, Fla.

Fla., Gary.—Hillsboro County Board of Education, Tampa, Fla., is having plans prepared by W. R. Biggers, Tampa, for school; 10 rooms and auditorium; will vote June 17 on \$20,000 bond issue. (Recently noted.)

Ga., Albany.—City and Dougherty county will vote on \$190,000 bond issue for improvements to include erection of two grammar schools in city (county to pay \$80,000 toward same). Address County Commissioners.

Ga., Augusta.—Academy of Richmond County has plans by T. M. Campbell, Augusta, to remodel Medical College building for shops, clearing-rooms and business department for Richmond Academy; 70x85 feet; two stories; ordinary construction; install office fixtures; brick walls (inside) to be removed and replaced by I-beams and iron columns; stairway to be reconstructed; install six sets of sinks in washroom; probably steam heat; electric lighting; cost \$6000; bids opened May 25. (Previously noted.)

Ga., Rentz.—Rentz School District will vote June 16 on \$8000 bond issue to erect school. Address District School Trustees.

Ky., Georgetown.—Scott County Board of Education, J. W. True, superintendent of schools, will erect two three-room buildings at Newtown and Great Crossings and three one-room buildings at Risk's Grove, Double Calvert and Big Eagle Bridge.

Ky., Lexington.—Building committee of St. Paul's, James P. Banahan, chairman, will receive bids until June 16 to erect school at Short and Sycamore Sts.; proposals received as whole or in part; plans and specifications at office of L. K. Frankel, architect, Lexington, and at pastoral residence, Short St.; office of Rives & Shannon, Trust Bldg., and Luby & Alexander, Main St.

Ky., Newtown.—Scott County Board of Education, J. W. True, superintendent of schools, Georgetown, Ky., will erect three-room school. (See Ky., Georgetown.)

Ky., Louisville.—Board of Education requested City Council to authorize election in November on \$1,000,000 bond issue for school improvements as follows: \$42,000 for sites; \$853,000 to erect high school and other school buildings; \$105,000 to enlarge existing school yards. Samuel D. Jones, business director of Board of Education, Administration Bldg., 8th and Chestnut Sts., will receive bids until June 25 to erect school on 26th St. between Davidson and Kentucky Sts.; plans by J. Earl Henry, Louisville, on file at office of Board of Education.

La., Donaldsonville.—Rev. Canon J. M. T. Massardier, pastor of Catholic church, is reported as interested in erection of St. Joseph's Commercial Institute, conducted by Brothers of the Sacred Heart.

La., Homer.—City receives bids until June 30 to erect two-story-and-basement brick school building in accordance with plans and specifications and obtainable from Stevens & Nelson Company, second floor Liverpool & London & Globe Annex, New Orleans, La.; A. R. Johnson, chairman building committee.

Miss., Columbia.—City voted \$15,000 bond issue to erect six-room brick school; ordinary construction; steam heat; electric lights; slate roof. Address The Mayor. (Recently noted.)

Miss., Collins.—Covington County Board of Education will erect agricultural high school, including academic building and two dormitories; location not decided; probably steam heat; cost \$40,000; architect not selected; proposals may be addressed to J. T. Calhoun. (Recently noted.)

Miss., Johns.—Rankin County School Board has plans by Overstreet & Spencer, Jackson, Miss., for agricultural high school recently noted; cost \$10,000; bids opened January 1, 1914; install small power plant; proposals may be addressed to J. A. Patrick, Johns. (See "Machinery Wanted.")

Miss., Laurel.—D. A. Scarborough, City clerk, will receive bids until July 23 to erect brick school.

Miss., Poplarville.—Pearl River county will award contracts June 21 to erect five or six

schools; three to five rooms; frame construction, except two-story brick structure; plans and specifications at office of C. E. Bass, County Superintendent of Education.

Mo., St. Louis.—Board of Education will expend \$30,000 for alterations to school and \$1200 to construct concrete wall at 4524 Nebraska Ave.

N. C., Angier.—Board of Trustees District No. 4, W. H. Gregory, secretary, will erect school; ordinary construction; cost \$12,000; plans not made. (Bond issue of \$15,000 recently noted voted.)

N. C., Bessemer City.—Board of Trustees, R. F. Coble, chairman, opens bids June 23 for construction (including heating, plumbing and wiring) of graded school building; plans by Sayre & Baldwin, Bleckley Bldg., Anderson, S. C. (Recently noted.)

N. C., Kenly.—Board of Trustees, H. F. Edgerton, chairman, opens bids June 13 to erect school building, including heating; plans by Sayre & Baldwin, Bleckley Bldg., Anderson, S. C. (Bond issue of \$15,000 recently noted authorized.)

N. C., Rocky Mount.—City voted \$35,000 bond issue to erect school; L. F. Tillery, Mayor (not W. L. Parrott, as recently reported).

Okla., Bowling Green.—Normal College trustees have plans for \$83,000 dormitory; half-square shape, each wing being 146x143 feet.

Okla., Manchester.—Manchester School District voted bond issue. Address District School Trustees.

S. C., Columbia.—Allen University, W. W. Beckett, D.D., president, plans to purchase site for industrial plant at university.

S. C., Darlington.—Darlington county has plans by D. C. Barbot, Charleston, S. C., for school building; 12 rooms and auditorium; cost \$10,000; proposals may be addressed to J. D. Coker, Hartsville, S. C. (Previously noted.)

S. C., Greer.—Greer School District will vote June 17 on \$6500 bond issue to erect school; John D. Wood, M. D. Cunningham and J. D. Lanford, trustees.

S. C., Turbeville.—City issued \$6011 of bonds and will erect school. Address The Mayor.

Tenn., Chattanooga.—University of Chattanooga, John H. Race, acting president, plans improvements to include alterations to science hall, gymnasium to cost \$40,000 to \$50,000, woman's dormitory of 50 to 60 rooms to cost \$35,000, rebuilding main structure, etc., at cost of \$80,000.

Tenn., Cleveland.—Board of Education opens bids about June 20 to erect school building; 162x50 feet; two stories and basement; brick walls; steam heat; electric lighting; Barrett specification roof; cost \$20,000; plans by J. D. Alsop, Chattanooga, Tenn.

Tenn., Union City.—City will erect school building. Address The Mayor.

Tex., Bandera.—School Board accepted plans by Mr. Oppert, Comfort, Tex., for school building.

Tex., De Soto, R. F. D. from Cedar Hill.—De Soto School District has plans by Chas. Lee for school building; 49x55 feet; ordinary construction; cost \$7500; Thomas E. Henry, superintendent of schools, Dallas, Tex. (Recently noted to issue \$3500 of bonds.)

Tex., Fort Worth.—Rev. J. E. Malone will be in charge of All Saints' Academy to be erected adjoining North Fort Worth Catholic Church; three stories; cost \$50,000.

Tex., Matagorda.—Matagorda Independent School District will vote on \$8000 bond issue to erect school building. Address District School Trustees.

Tex., Mercedes.—Independent School District will vote June 28 on \$10,000 bond issue to erect addition to South Side school building; E. E. Evans, president Board of Trustees.

Tex., San Antonio.—San Antonio Academy will erect dormitory at 2901 N. Flores St.; three stories; brick veneer; two fire-escapes, etc.; cost \$20,000.

Tex., Sour Lake.—Sour Lake Independent School District will receive bids to erect one three-room frame school building and two-room structure; information from W. P. Wallace, Grayburg, Tex.

Va., Norfolk.—City has plans by Ferguson, Calrow & Taylor of Norfolk for eight-room school in Berkeley; cost \$25,000; also has plans by Neff & Thompson, Norfolk, for school at Lambert's Point; cost \$25,000. (Recently noted as recommending appropriation of \$54,700.)

Va., Richmond.—School Board will appropriate \$29,000 to purchase site bounded by

Floyd Ave., Main, Lombardy and Vine Sts. for school to be erected.

W. Va., Kingwood.—Board of Education of Kingwood District ordered election for June 30 to vote on \$35,000 bond issue to erect schools at Tunnelton and Manown and repair schools at Kingwood.

W. Va., Tunnelton.—Board of Education of Kingwood District, Kingwood, W. Va., ordered election for June 30 to vote on \$35,000 bond issue to erect school at Tunnelton, etc. (See W. Va., Kingwood.)

W. Va., Wheeling.—S. S. Jacobs, clerk, Wooddale, Wheeling, will receive bids until June 13 for alterations to Edington Lane School building; plans and specifications at office of Geo. S. Mooney, architect, 621 Schmulbach Bldg., Wheeling.

STORES

Ala., Birmingham.—Earle Bros. will erect building at 1918-20 First Ave.; 50x140 feet; five stories and basement; reinforced concrete; two passenger and two freight elevators; ornamental terra-cotta fronts; cost about \$80,000; plans by Miller & Martin, Birmingham.

Ala., Birmingham.—Porter Clothing Co., H. J. Porter, president, will expend \$20,000 for interior improvements to store building; plans by William Leslie Welton, Birmingham.

Ala., Mobile.—William H. Louisell is having plans prepared by Robert Windham, Mobile, for business block; two stories; pressed-brick front; cost \$75,000.

Ala., Mobile.—Mrs. M. F. Kirkbride, It is reported, acquired site at St. Francis and Joachim Sts. for stores and offices.

Ark., Dermott.—Arkansas Realty Co. has plans by R. W. Whitehead, 501½ Main St., Little Rock, Ark., for four store buildings; cost \$7500.

D. C., Washington.—Elwood O. Wegenhorst, Bond Bldg., purchased site at 12th and H Sts. N. W. and will erect store and office building; details not determined.

Fla., Bartow.—W. J. J. Whidden will, it is reported, erect business building.

Fla., Bartow.—E. C. Stuart will erect two-story brick buildings on Central Ave. between Main and Summerlin Sts.

Fla., Jacksonville.—John A. Futch will erect two-story brick-veneer building on St. Johns River between Margaret and Goodwin Sts.; also garage in rear; cost \$14,200.

Fla., Orlando.—Yowell-Duckworth Company opens bids in about three weeks to erect business block; 90x50 feet; ordinary construction; cost \$35,000 to \$40,000; plans by M. S. King of Orlando. (Recently noted.)

Fla., Orlando.—N. P. Yowell, E. G. Duckworth and Ben Drew have plans by M. S. King, Orlando, for store building; four stories; buff brick; 87x57 feet; ordinary construction; fireproof; steel ceilings; tiled floors; top floor for offices. (Recently noted.)

Fla., Pensacola.—M. J. Elkan and N. Kaiser will erect store, apartment and theater building. (See "Stores.")

Fla., Stuart.—H. C. Ferree will erect double concrete store building.

Ga., Atlanta.—Mrs. Mattie Wood will expend \$4000 for alterations to building at 373 Cherokee Ave.

Ga., Atlanta.—Independent Benevolent Order will erect building for stores, etc. (See "Association and Fraternal.")

Ky., Louisville.—Elizabeth Metzroth will erect frame store at Preston and Rupp Sts.; cost \$4000.

Ky., Louisville.—Norton Caldwell Company will erect brick store at 108 W. Jefferson St.; cost \$3000.

Ky., Middleboro.—W. F. Ely of Ely Bros. Company will erect business building.

La., De Ridder.—Herman McMahon will erect business building; one story; 62x52 feet.

La., Jennings.—Mrs. H. F. Jaenke will erect two-story brick business building.

La., Kentwood.—Kentwood Furniture Co. will erect brick business building.

La., New Orleans.—T. Jordan will erect store and residence at Rampart and Kentucky Sts.

La., New Orleans.—Mayer Realty Co. will erect two-story brick building; cost \$23,655.

La., New Orleans.—M. O'Connor will erect building; cost \$3500.

Miss., Biloxi.—Mrs. H. M. Folkes and estate of T. P. Dullon will award contract to T. J. Rosell and Harry Haise to erect business building; one story; brick.

Miss., Ocean Springs.—A. C. Goetsche will erect business building; two stories; brick.

Miss., Greenwood.—R. W. Millspaugh is having plans prepared to rebuild store; 85x55 feet; ordinary construction; electric lighting; date of opening bids not set. (Recently reported burned.)

Mo., Kansas City.—Kansas City Heating Co. awarded contract to Hucker & Sexton, National Bank Commerce Bldg., Kansas City, to remodel heating plant; cost \$30,000. (Recently noted to erect building.)

Mo., St. Louis.—J. H. Peuser will erect one-story store building at 5316-24 Florissant St.; cost \$5000.

Mo., St. Louis.—A. J. Cicardi will erect two-story store building at 4916-18 Delmar St.; cost \$8000.

N. C., Winston-Salem.—H. R. Starbuck will expend \$15,000 to erect store; 75x120 feet; ordinary brick construction; 8x8 freight elevator; slag roof; plans by W. C. Northrup; bids opened June 6. (Recently noted.)

Okla., Oklahoma City.—Bird Produce Co. will erect business building at Compress and Washington Sts.; one story and basement; brick and concrete.

S. C., Columbia.—W. A. Keenan has plans by George E. Lafaye, Columbia, for store and apartment house; 45x100 feet; ordinary construction; steam heat; cost \$10,000.

Tenn., Chattanooga.—R. W. Sowers will erect two-story brick building on Rossville Ave.; cost \$3000.

Tenn., Cleveland.—Theodore Lasley will remodel building; brick; tile roof; cost \$18,000.

Tenn., Columbia.—Smith Bros. will erect store building.

Tenn., Cooke.—Cooke Produce Co. will erect storehouse; is also erecting flour and grist mill to replace structure destroyed by storm.

Tenn., Memphis.—Elias Goldsmith has plans by Harker & Cairns, Memphis, for store building on South Main St.; three stories and basement; frontage 25 feet; cost \$12,000.

Tenn., Memphis.—Ike Block acquired four-story building at 2d St. and Jefferson Ave. and will remodel for stores and offices; will install steam-heating plant, etc.; cost \$15,000 to \$20,000.

Tenn., Memphis.—I. R. Page has plans by Harker & Cairns, Memphis, for store building; two stories and basement; cost \$8000.

Tenn., Nashville.—Max Bloomstein will erect building at West End and Twenty-first Ave.; two stores on lower floor and apartments above.

Tenn., Nashville.—E. C. Scruggs will erect frame structure on Elmwood St.; cost \$3000.

Tex., Charlie.—B. E. Wait will rebuild store recently burned; 25x80 feet; brick; gas lighting; gravel roof; cost \$4000.

Tex., El Paso.—S. J. Calhoun will expend \$4000 to remodel building at 611 N. El Paso St.

Tex., Floydada.—C. S. Field, Fort Worth, Tex., will erect two-story brick building; 130 feet deep.

Tex., Fort Worth.—E. E. Bairdridge plans to erect brick business building; three stories and basement; cold-storage plant in basement.

Tex., Gatesville.—O. F. Wells and J. R. Brown open bids June 15 to erect store and office building recently noted. (See "Bank and Office Buildings.")

Tex., Greenville.—Graham Bros. will let contract June 15 to 20 to erect store and office building; three or four stories; reinforced concrete; steam heat; electric elevator; tar or pitch and gravel roof; plans by C. D. Hill & Co., Dallas, Tex. (Recently noted.)

Tex., Houston.—Frank Andrews will erect store building at Main and Bell Sts.; one story; 125x55 feet; five stories; cost \$12,500; plans by Glover & Sons, Houston.

Tex., Houston.—E. Hoencke will erect store and apartment building. (See "Apartment-houses.")

Tex., San Antonio.—Mrs. Bedell Moore will erect business building at Travis St. and Avenue C.

Tex., San Antonio.—King & Hillje will erect store building on Main Ave.; cost \$10,000.

Tex., Temple.—R. B. Stephens, Box 115, has plans by G. W. Collignon, Houston, Tex., for building; 60x110 feet; two stories; cement ground floor; steel ceiling; electric lighting; elevator; four-ply gravel roof; cost \$10,000; construction by owner. (Recently noted.)

W. Va., Huntington.—West Virginia

Plumbing Co. will erect building; three stories; brick.

W. Va., Huntington.—Oxley, Troeger & Oxley will erect 25-foot addition in rear of store building.

THEATERS

Fla., Pensacola.—M. J. Elkan and N. Kaiser will erect building at Palafox and Garden Sts.; 50x133 feet; three stories; two stores on lower floor; four-room apartment above store; remainder of structure for theater to be leased to Fichtenberg Amusement Enterprises; cost, including equipment, \$75,000.

Tenn., Johnson City.—Dr. J. H. Press and G. Y. Robinson will erect opera-house on Main St.; brick; site 55x125 feet; seating capacity 750 to 1000; plans by R. D. Beeson, Knoxville, Tenn.

WAREHOUSES

Ark., Dermott.—Dermott Grocery Co. has plans by R. W. Whitehead, 501½ Main St., Little Rock, Ark., for warehouse; cost \$7000.

Fla., Tampa.—Beechum Packing Co. will erect warehouse; corrugated iron; cost \$3000.

Miss., Yazoo City.—Farmers' Warehouse Co. incorporated with \$2500 capital stock by R. S. Brown, W. A. Henry, both of Yazoo City, and W. V. Coady, Phoenix, Miss.

Mo., Kansas City.—Coburg Land Co. has plans, it is reported, by J. W. McKecknie, Gloyd Bldg., Kansas City, for building at St. John and Belmont Aves., to be occupied by Montgomery, Ward & Co., W. C. Thorne, vice-president, Chicago, Ill.; nine stories; "I" shape, with two wings each 434 feet long; cost \$1,250,000. (Previously noted.)

Mo., St. Louis.—American Manufacturing Co., Henry R. Murray, secretary, will erect warehouse at 800-12 Barry St.; three stories; 60x140 feet; cost \$35,000.

N. C., Mount Airy.—Banner & Lovell will erect brick and steel tobacco warehouse; 105x180 feet; stone walls; cost \$12,000 to \$15,000.

S. C., Kershaw.—J. M. Carson Company is erecting brick warehouse, buggy-room and stables; former 45x100 feet; two stories; latter 50x100 feet.

Solidated Realty & Manufacturing Co., New Orleans, closed contract with W. H. Wright, New Orleans, for two double cottages on Poland St.; bungalow type.

La., New Orleans.—Walter J. Suthon awarded contract to Burris D. Schneldan to erect two double cottages; slate roof; cost \$3900. (Recently noted.)

La., New Orleans.—Miss Alice Relf, 923 Marigny St., has plans by and awarded contract to J. L. Smith, Solomon and Palmyra Sts., New Orleans, to erect residence; 12 rooms; two stories; slate roof; cost \$3600. (Homeowners' Building and Loan Association recently noted as to erect dwelling.)

Md., Baltimore.—Samuel House, 118 W. 22d St., awarded contract to Webb & White, seventh floor Title Bldg., Baltimore, to erect cottage on North Ave., Hill Top Park; three stories; frame; slate; porches on three sides; hot-water heat; cost \$7000.

Md., Baltimore.—E. K. Loane, 207 Ashland Ave., awarded contract to Webb & White, Title Guarantee and Trust Bldg., Baltimore, to erect residence at Hill Top Park; two and one-half stories; frame; porches; plans by H. J. Tinley, 312 N. Charles St., Baltimore.

Md., Baltimore.—D. M. Newbold, Equitable Bldg., has plans by and awarded contract to J. Zimmerman, Carswell St. near Kennedy Ave., to erect seven dwellings on north side of Carswell St. near Kennedy Ave.; two stories; iron-spot brick; 14x45 feet; cost \$8000.

Md., Cumberland.—L. Schaidt awarded contract to J. C. Powell of Cumberland to erect proposed dwelling; 30x43 feet; brick; mill construction; hot-water heat; slate roof; plans by Wright Butler of Cumberland.

Mo., Clayton.—Charles B. Collins awarded contract to Merrill Construction Co., 515 Century Bldg., St. Louis, to erect brick dwelling; 40x45 feet; cost \$16,000.

Mo., St. Louis.—M. E. Everts will erect three-story dwelling at 453 Flora St.; 30x41 feet; eight rooms; ordinary construction; hot-water heat; electric lighting; slate roof; cost \$9000; plans and construction by Adolph Wagner, 3556 Flora Bldg., St. Louis.

Mo., St. Louis.—Charles F. Graham awarded contract to Alfred B. Bendetty, 6511 Joseph Ave., St. Louis, to erect brick residence; 25x43 feet; cost \$4500; plans by D. R. Smith, Leabodie Ave., St. Louis.

Mo., University, Station St. Louis.—J. G. Egan awarded contract to N. B. Lenard, Balson Bldg., St. Louis, to erect residence; 31x40 feet; cost \$7000.

Mo., University, Station St. Louis.—Josephine Stolle awarded contract to B. J. Charleville, 819 Chestnut St., St. Louis, Mo., to erect brick residence; 49x39 feet; cost \$7000; plans by B. J. Bradshaw, Liggett Bldg., St. Louis, Mo.

N. C., Concord.—C. M. Ivey will expend \$3000 to \$4000 to erect eight-room dwelling; ordinary construction; cypress shingle roof; plans by Louis H. Asbury, Charlotte, N. C.; contract recently noted awarded to F. C. Niblock, Concord.

N. C., Henderson.—J. A. Moor awarded contract to R. R. Pinkston, Henderson, to erect dwelling; 46x38 feet; ordinary construction; hot-water heat; asbestos shingle roof; cost \$4000. (See "Machinery Wanted.")

N. C., Raleigh.—Kimbrough Jones, Jr., R. F. D. No. 1, awarded contract to Thomas M. Copeland, Raleigh, to erect two-story residence; eight rooms and attic; two baths; hot-air heating; probably install compressed-air tank or ordinary tank in attic for water supply; acetylene-gas lighting; cost \$7800; plans by James A. Salter, Raleigh; plumbing, heating and lighting not in contract.

N. C., Winston-Salem.—C. C. Clineard awarded contract to Irvin McIver, Winston-Salem, to erect dwelling; 41x64 feet; two stories; ordinary construction; hot-air heat; electric lighting; shingle roof; cost \$6000 to \$7000; plans by W. C. Northrup. (Recently noted.)

N. C., Winston-Salem.—Dr. John Bynum awarded contract to J. L. Couch, Greensboro, N. C., to erect residence.

Ola., Tulsa.—C. P. Collins will erect two-story frame dwelling in Stonebraker Heights; 30x33 feet; nine rooms; frame; shingle roof; cost \$3500; plans by R. E. Swearingen of Tulsa; contract awarded.

S. C., Kershaw.—John M. Lowry awarded contract to erect dwelling; six rooms.

Tenn., Knoxville.—Mrs. C. C. Cruze awarded contract to Thomas & Turner, Knoxville, to erect dwelling at Kenyon and Deery Sts.; cost \$4000.

Tenn., Memphis.—Mrs. Bailey awarded contract to J. B. Holt to erect residence at 251 McLean Blvd.; cost \$4000.

Tenn., Memphis.—C. Dodds awarded contract to F. E. Meacham to erect residence at 1013 Kansas St.; cost \$7000.

Tenn., Memphis.—John Miller awarded contract to F. E. Meacham to erect residence at 1933 Peabody Ave.; cost \$6000.

Tenn., Memphis.—Dr. W. H. Gragg awarded contract to W. C. Gould to erect residence at 1005 Parkway; cost \$4000.

Tex., Brenham.—O. E. Tefs awarded contract to erect residence.

Tex., El Paso.—Charles Davis will expend \$15,000 to erect dwelling; 10 rooms; stucco; steam heat; electric lighting; fireproof construction; steam heat; electric lighting; composition roof; plans by O. M. Thorman & Co.; contract recently noted awarded to Mayfield Building & Improvement Co.

Tex., Edna.—E. T. Rose awarded contract to D. G. Hurley, Edna, to erect nine-room dwelling; mill construction; open fireplaces; electric lighting; cypress shingle roof; cost \$4500; plans by Jones & Tabor, Houston. (Recently noted.)

Tex., Edna.—F. W. Simons awarded contract to H. J. Holdridge, Edna, to erect 10-room dwelling; mill construction; electric lighting; cypress shingle roof; cost \$4500. (Recently noted.)

Tex., El Paso.—First Methodist Episcopal Church, Rev. Herman G. Porter, pastor, 149 Ochon St., awarded contract to erect parsonage and church. (See "Churches.")

Tex., Nacogdoches.—R. W. Haselwood will erect residence; brick; heaters and grates; electric lighting; metal shingle roof; cost \$5000; plans by D. Rulife, Nacogdoches; contract awarded to Littleton Herrin.

Tex., San Antonio.—Clifton H. Tupper awarded contract to Loessberg & Reinholdt to erect dwelling; two stories; frame and concrete; furnace; plans by Adams & Adams. (Recently noted.)

Va., Alexandria.—F. F. Marbury awarded contract to W. M. Brown to erect residence on Prince St.

Va., Lynchburg.—W. W. Couch will erect shingle residence on Rivermont Ave.; slate roof; cost \$11,000; 12 rooms; vapor heat; plans by McLaughlin & Johnson, Lynchburg; contract awarded to C. W. Womack.

Va., Lynchburg.—Lewis E. Mason awarded contract to J. P. Williamson to erect dwelling; stucco and frame; shingle roof; vapor heat; cost \$6000; plans by McLaughlin & Johnson, Lynchburg.

Va., Lynchburg.—H. F. Lambert will erect frame, stucco and shingle residence on Rivermont Ave.; timber and stucco; shingle thatched roof; vapor heat; cost \$7000; contract awarded to W. K. Barger.

GOVERNMENT AND STATE

Ark., Little Rock.—Board of State Charitable Institutions, R. W. Hart, secretary, awarded contracts to erect \$12,000 two-story brick building and \$4000 barn at Deaf Mute Institute; plans by H. J. Harker, Little Rock. (Recently noted.)

Ga., Columbus.—Postoffice.—Treasury Department, Oscar Wenderoth, supervising architect, Washington, D. C., awarded contract at about \$7000 to Algernon Blair, Montgomery, Ala., for improvements to postoffice building. (Recently noted.)

N. C., Raleigh.—Administration.—State Building Commission, Ashley Horne, chairman, awarded contract at about \$40,000 to General Fireproofing Co. (not General Furnishing Co. as recently reported), Youngstown, O., for metal furniture and filing devices for administration building, and to D. S. Hess & Co., New York, for painting, decorating and draperies. (Recently noted.)

HOTELS

D. C., Washington.—Harrington Hotel Co. awarded contract to Samuel J. Prescott, 814 13th St. N. W., Washington, to erect hotel building at 11th and E Sts.; six stories and mezzanine; 90x77 feet; 100 rooms, of which 90 will have private baths; exterior of first and mezzanine floors of granite and limestone; upper stories tapestry brick; trimmings, belt and sill cornices of terra-cotta; commercial design with Renaissance detail; lobby and dining-room finished in Caen stone.

La., Shreveport.—T. R. Hodges, 608 Crockett St., will expend \$50,000 to erect annex to Inn Hotel; 40x150 feet; three stories; fireproof construction; steam heat; Warren Chemical Co.'s roofing; plans by E. F. Neld; contract recently noted awarded to W. H. Werner.

Tex., Angleton.—Mrs. Mary Delaney awarded contract to Jim Patterson to erect hotel to replace burned structure.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Ark., Little Rock.—Ike Kempner awarded contract to William Peterson to erect apartment-house on West Capitol Ave.; two stories; four seven-room apartments; cost \$25,000; plans by Theo. M. Sanders, Little Rock. (Previously noted.)

Mo., St. Louis.—Jessie Morris Realty & Investment Co. awarded contract to M. Ferlich, St. Louis, to erect apartment-house; 47 feet 7 inches by 52 feet; down-draft steam boiler system of heating; composition roof; cost \$24,000; plans by Nolte & Nauman, St. Louis. (Recently noted.)

N. C., Winston-Salem.—Hancock, Brown & Sharp awarded contract to W. P. Joyner, Winston-Salem, for four tenements; one two story 18-room and three two-story 12-room frame structures; cost \$6120.

Tenn., Chattanooga.—Dr. J. H. Taylor awarded contract to T. J. McClure to erect apartment-house on 5th St. near Douglas St.; two stories; six four-room suites; front of white brick; cost \$10,000.

Tex., Houston.—Sidney Myers awarded contract to J. J. Green to erect apartment-house; three stories; brick and hollow tile; frontage 70 feet; six four-room suites; cost \$20,000; plans by Green & Finger, Houston.

ASSOCIATION AND FRATERNAL

Ark., Texarkana.—Ancient Free and Accepted Masons awarded contract to W. L. Mercer to erect temple; white stone front; cost \$11,000; plans by Witt & Seibert, Texarkana. (Recently noted.)

Va., Petersburg.—Young Men's Christian Association awarded contract at \$77,190 to Harrison Construction Co., Petersburg, to erect association building; plumbing, heating and wiring included in contract; plans by Shattuck & Hussey, Chicago, Ill., and S. Dalley Craig, Leigh Bldg., Petersburg. (Recently noted.)

BANK AND OFFICE

Fla., Sarasota.—Bank of Sarasota awarded contract to erect bank building; cost \$25,000. (Previously noted.)

Ga., Savannah.—People's Bank awarded contract to Woodard & Cunningham to remodel building. (Recently noted.)

Miss., Marks.—Riverside Bank awarded contract to erect bank building; cost \$5000.

Okl., Cleveland.—Oneal & Ault have contract to erect office and store building for Myers & Brentall. (See "Stores.")

Okl., Cleveland.—Oneal & Ault have contract to erect building for Cleveland National Bank.

Va., Roanoke.—Sun Investment Co. awarded contract to erect addition to and remodel building for stores and offices. (See "Stores.")

CHURCHES

Ala., Cullman.—Sacred Heart Catholic Church awarded contract to P. J. Clarke, 326 N. St. N. W., Washington, D. C., to complete church according to revised plans by A. O. von Herbulis, Birmingham, Ala.; building 95x143 feet; cost \$65,000.

Miss., Brookhaven.—Baptist Church, Rev. W. H. Morgan, pastor, awarded contract to Hull Construction Co., Jackson, Miss., to erect building; three stories; brick; seating capacity 1200; plans by and construction under supervision of Mr. Parr of Smith & Parr, Oklahoma Bldg., Oklahoma City, Okla. (Previously noted.)

Tenn., Knoxville.—People's Tabernacle awarded contract to Reliance Building Co., Knoxville, to erect mission building; 40x30 feet; ordinary construction; hot-air heat; electric lighting; asphalt shingle roof; cost \$5000; plans by A. E. Gredig, Knoxville. (Recently noted.)

Tex., El Paso.—First Methodist Episcopal Church, Rev. Herman G. Porter, pastor, 149 N. Ochon St., awarded contract to J. C. Worthington, 1220 E. Wyoming St., El Paso, to erect church and parsonage; former 75x37 feet; latter 23x59 feet; steam heat; gas and electric lighting; tile or asbestos roof; cost \$50,000; plans by A. M. Worthington, Albany, N. Y. (See "Machinery Wanted.")

Tex., Paducah.—Methodist Episcopal Church South awarded contract to L. M. Walch to erect building; 72x50 feet; fireproof construction; heating not decided; electric lighting; tar and gravel roof; cost \$6000; plans by R. H. Stuckey, Chillicothe, Tex. (Recently noted.)

W. Va., Elkins.—First Baptist Church, Rev. S. E. Tiffany, pastor, awarded contract to Smith Construction Co., Morgantown, W. Va., to erect building; brick and stone; cost \$21,500; plans by Edwin E. Pruitt & Co., Columbus, O. (Previously noted.)

W. Va., Wheeling.—Church of Christ awarded contract to erect building. Address The Pastor, Church of Christ.

CITY AND COUNTY

Fla., Tampa.—Jail.—Hillsboro county awarded contract at \$3687 to Bates & Hudson, Tampa, Fla., to erect annex to jail to accommodate 64 prisoners; two-story cells and windows; concrete floor; opened bids for construction and erection of jail cells, etc.; Stewart Iron Works, Cincinnati, O., is lowest bidder at \$6475, \$6612 and \$7195; Franz Safe & Lock Co., engineer, 27-29-31 S. Hogan St., Jacksonville, Fla., and Greeson Bldg., Tampa. (Recently noted.)

DWELLINGS

Ala., Birmingham.—W. F. Aldrich awarded contract to W. S. Davis, 1615 N. Sixteenth Ave., Birmingham, to erect dwelling; 50x70 feet; log construction; acetylene lighting; composition shingle roof; cost \$6000; plans by Miller & Martin, Birmingham.

Ala., Birmingham.—George Stewart will erect two-story frame building on 26th St. between Tenth and Bay Aves.; cost \$3500; contract awarded to A. M. Tharp.

Ala., Birmingham.—J. T. Kent will erect two-story frame building at Hilltop Station; cost \$4000; contract awarded to Siye & Moseley.

Ark., Batesville.—Methodist Church awarded contract to Fugett & Russ, Batesville, to erect parsonage.

Ark., Little Rock.—James Lawson awarded contract to H. H. Shell to erect residence in Midland Hills; cost \$3500; plans by Theo. M. Sanders, Little Rock.

Fla., Lakeland.—O. M. Eaton awarded contract to Marshall & Sanders to erect residence; brick; cost \$10,000.

Ky., Stone.—Pond Creek Coal Co. awarded contract to William A. Liller, Keyser, W. Va., to erect 165 double houses, eight rooms each; 40 five-room, 35 four-room dwellings, and 15 bungalows of six rooms each; frame; ordinary construction; grates; composition roof; cost \$280,000; plans by A. R. Brisel. (See "Machinery Wanted.")

La., New Orleans.—F. L. Goodwin of Con-

MISCELLANEOUS

Mo., Crescent—Greenhouses.—J. T. Milliken awarded contract to William Elias, Crescent, to erect five greenhouses; 30x200 feet, 30x51 feet, 30x158 feet, 18x149 feet and 1x51 feet; cost \$10,000.

W. Va., Wheeling—Bathhouses.—R. E. Keyser, Elm Grove, W. Va., has contract to erect bathhouses in Wheeling Park. (See "Miscellaneous Construction.")

RAILWAY STATIONS, SHEDS, ETC.

Miss., Hattiesburg.—Hattiesburg Traction Co. awarded contract to erect combination office building, storage warehouse, display rooms, demonstration and audience hall; display rooms on first floor to have plate-glass fronts.

Tenn., Memphis.—Virginia Bridge and Iron Works, Roanoke, Va., has contract for steel work (about 1150 tons) on \$500,000 station for Illinois Central Railroad Co. (A. S. Baldwin, chief engineer, Chicago, Ill.), for which general contract was awarded to James Alexander Construction Co., Memphis. (Recently fully detailed.)

SCHOOLS

Ky., Barbourville.—Knox County Commissioners awarded contracts to erect 12 schools in county, six of brick construction.

Miss., Meadville.—Franklin County Commissioners awarded contract to H. B. Nelson, Meadville, to erect agricultural high school. (Recently noted.)

Miss., Indianapolis.—City awarded contract to C. E. Ard, Birmingham, Ala., to erect school building; brick; hot-air heat; composition roof; cost \$20,000; cost of lighting plant \$1600; plans by Ben Price, Birmingham, Ala. (Recently noted.)

Mo., Poplar Bluff.—Board of Education awarded contract to McCarthy Lumber & Construction Co., Farmington, Mo., to erect high school and for plumbing; to Hydraulic Press Brick Co., St. Louis, Mo., for finished brick material, and to Lewis & Ketchum, Kansas City, Mo., for heating equipment; plans by L. B. Walker, Poplar Bluff, call for structure 115x115 feet; two stories and basement; steam heat; electric lights; Johns-Manville built-up roof. (Recently noted.)

Tenn., Adams.—City awarded contract to Gilbert & Moore, Adairville, Ky., to erect \$10,000 school. (Contract recently noted awarded, but this contract rescinded.)

Tenn., Johnson City.—City awarded contract to Curtis Bros., Johnson City, to erect school previously noted; 111x142 feet; fireproof construction; direct and indirect steam heat; electric lighting; Barrett specification roofing; cost \$50,000; plans by Bauman Bros., Knoxville, Tenn.; D. R. Beeson (not D. R. Buson as recently reported) is supervising architect.

Tex., Wichita Falls.—Wichita Falls Independent School District awarded contract to E. J. Holderness Construction Co., Stamford, Tex., to erect ward school; 63x35 feet; mill construction; steam and fan-blast heat; tar and gravel roof; cost \$22,110; plans by Pate & Von der Lippe, 400 Kemp Bldg., Wichita Falls. (Recently noted.)

Va., Norfolk.—Tanners Creek District School Board awarded contract to Seay Bros., Norfolk, to erect school in Douglas Park; four rooms; brick; plans by Lee & Diehl, 408 Seaboard Bank Bldg., Norfolk. (Recently noted.)

W. Va., Clarksburg.—City awarded contract to Kiser Bros., Fairmont, W. Va., to erect North View school; cost \$51,800.

W. Va., Huger, P. O. at Olmsted.—Brown's Creek School District, Henry K. Barbe, district superintendent, Welch, W. Va., awarded contract to Graham Construction Co., Graham, Va., to erect four-room brick school; ordinary construction; plans by W. B. Smith, Huntington, W. Va. (Recently noted.)

W. Va., Marytown.—Brown's Creek School District, Henry K. Barbe, district superintendent, Welch, W. Va., awarded contract to Carter Bros. & Bird, Bluefield, W. Va., to erect four-room brick school recently noted; plans by W. B. Smith, Huntington, W. Va.; building 22x32 feet; mill construction; hot-air heat; electric lighting; composition roof; cost \$4500. (See "Machinery Wanted.")

W. Va., Paw Paw.—Board of Education of Capcan District awarded contract to Wm. J. Morley, Cumberland, Md., to erect school building; 70 feet 10 inches by 55 feet 2 inches; ordinary construction; Carey's roofing; cost \$15,236; plans by Holmboe & Laferty, Clarksburg, W. Va. (Recently noted.)

STORES

Ala., Birmingham.—W. J. Milner will erect two-story frame building in South Milner Heights; cost \$5975; contract awarded to T. L. Medders & Co.

Fla., St. Petersburg.—C. B. Witt Company awarded contract to erect wholesale grocery store; 80x90 feet; fireproof; gravel roof; cost \$7100; plans by McGucken & Hyer.

Fla., Tampa.—Tuell Realty Co. awarded contract to W. C. Hammond to erect two-story frame building at 21st St. and Michigan Ave.; cost \$5000.

Ga., Atlanta.—Jessup & Antrin awarded contract to Gude & Co. to erect two-story reinforced concrete building on East Ellis St.; cost \$17,000.

La., Lake Charles.—Mrs. J. Marx awarded contract to Delatte & Lagrange, Lake Charles, to erect three-story brick building to be occupied by Hemenway Furniture Co.; plans by A. H. Humphrey.

Md., Baltimore.—The Hub, Baltimore and Charles Sts., awarded contract to Edward Brady & Sons, 1113 Cathedral St., Baltimore, to erect additional story to building at Charles and Baltimore Sts., according to plans by Parker, Thomas & Rice, Professional Bldg., Baltimore.

Okla., Cleveland.—Oneal & Ault have contract to erect one-story building for Speed & Grady; brick with stone trimmings.

Okla., Cleveland.—Oneal & Ault have contract to erect store and office building for Myers & Brentall.

Tenn., Memphis.—Brinkley Snowden awarded contract to Kaucher & Hodges, 1520 Exchange Bldg., Memphis, to remodel portion of Masonic Temple for stores; will reduce to two stories, provide two stores, etc.; plans by Harker & Cairns, Memphis.

Tex., Cuero.—Mrs. Mary R. Kleinecke awarded contract to Shropshire & Trautwein to erect business building on Main St.; two stories; brick; cost \$7000; plans by Kleuser & Whitkey. (Recently noted.)

Tex., Cuero.—J. A. Graves awarded contract to Winstedt Company, Yoakum, Tex., to erect business block; cost \$40,000. (Recently noted.)

Tex., Pleasanton.—G. Ricks & Son have plans by and awarded contract to H. N. Gregory, Pleasanton, to erect proposed store building; 50x90 feet; ordinary construction; electric lighting; composition roof; cost \$4000.

Va., Roanoke.—Sun Investment Co. awarded contract to J. F. Barbour & Sons to erect addition to and remodel building for stores and offices; addition, 40x75 feet; mill construction; steam heat; electric lighting; tile roof; cost \$10,000; plans by H. M. Miller. (Previously noted.)

WAREHOUSES

Ala., Tuscaloosa.—Gulf Refining Co., main office, Pittsburgh, Pa., awarded contract to A. Laycock to erect oil warehouse.

Md., Baltimore.—J. J. Moylan, 116 E. Center St., Baltimore, is preparing plans and has contract to erect warehouse to be occupied by J. R. M. Adams; 38x90 feet; four stories and cellar; steel and brick construction; steam heat; electric elevator; slag roof; cost \$25,000. (Previously noted.)

Md., Baltimore.—J. Ross Myers, 406 Guilford Ave., awarded contract to Blake & Engel, Law Bldg., Baltimore, to remodel warehouse at 325 Guilford Ave., to include reinforcement of floors and fireproofing building.

Mo., St. Louis.—Barnhart Mercantile Co. awarded contract to Robert Osterhorn to erect building; 90x86 feet; ordinary construction; electric lighting; electric elevator; composition roof; cost \$30,000; plans by Wilbur Trueblood. (Recently noted.)

N. C., Greensboro.—Retail Merchants' Association awarded contract to W. B. Hunt to erect tobacco warehouse; 90x170 feet; ordinary brick construction; composition roof; cost \$10,000. (Recently noted.)

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Birmingham.—The Louisville & Nashville Railroad, according to a local report, will enlarge its yards at Boyles, in the suburbs of Birmingham, to about twice their present capacity. W. H. Courtenay, Louisville, Ky., is chief engineer. A later report says that the enlargement is already in progress.

Ala., Mobile.—The Mobile & Baldwin County Railroad Co., P. O. Box 923, Mobile, Ala., is reported to have begun construction of its proposed line from Mobile to Bay Minette, Volantia, Fairhope, Foley and other Alabama points and Pensacola, Fla. Offices in Bank of Mobile Building. W. B. Miller of Chicago is president; M. H. Miller, Mobile, vice-president, general manager and purchasing agent; P. A. Parker, chief engineer.

Ga., Augusta.—The Atlanta & Carolina Railway Co., which proposes to build an electric railway from Atlanta to Augusta, has applied for a franchise in Augusta. James U. Jackson of Augusta may be able to give information.

Ky., McKee.—J. C. Pence of Westernport, Md., and Marvin L. Taylor of Elkins, W. Va., says a local report, have completed preliminary survey for the proposed Rockcastle Railroad from McKee via Annville to East Bernstadt, Ky., about 28 miles, and the first five miles is located. N. U. Bond, Oakland, Md., is general manager. Construction is to begin July 1.

Ky., Owensville.—W. W. Hubbard of Indianapolis, Ind., according to a local report, proposes to build a railroad from Owensville to Preston, Ky., five miles, for a bonus of \$20,000.

Ky., Paducah.—H. C. Rhodes, president of the Kentucky Southwestern Railway, Light & Power Co., is reported saying that contract for construction has been let and financial arrangements made and the stockholders will meet June 16 to ratify the contracts and thus have construction begin August 1. The proposed line is from Paducah to Mayfield and Murray, Ky., about 55 miles. W. A. Calhoun of Paducah is chief engineer.

Ky., Pinsonfork.—The Norfolk & Western Railway, it is reported, contemplates building an extension of the Pond Creek branch via Johns Branch to the Elkhorn coal fields, 30 or 40 miles. C. S. Churchill, Roanoke, Va., is chief engineer.

Ky., Whitesburg.—Engineers are reported

surveying for a branch of the Lexington & Eastern Railway (Louisville & Nashville system) up Mace's Creek to coal and timber lands near the boundary of Perry and Letcher counties. J. H. Peyton, Louisville, Ky., is chief engineer of construction.

Ky., Whitesburg.—Officers of the Lexington & Eastern Railway (Louisville & Nashville system) are quoted saying that the extension up Rockhouse Creek from Blackey to Beaver Gap on the boundary of Letcher and Knott counties is practically assured and construction will begin within two months. Survey is finished and rights of way are being obtained. John Howe Peyton, Louisville, Ky., is chief engineer of construction.

La., Lake Providence.—The Desha Lumber Co., which will move plant from Arkansas City, Ark., to Lake Providence, La., will have a railroad about 25 miles long. C. W. Hyde of South Bend, Ind., is president; L. H. Brothers of Lake Providence, La., vice-president; W. E. Hyde, secretary; C. E. Hyde, treasurer, and E. O. Johnson, manager, all of Arkansas City, Ark.

La., Rayville.—The Rayville Progressive League, according to a local report, proposes to build a railroad from Rayville to Pioneer, La., about 30 miles.

Md., Baltimore.—The Municipal Board of Estimates has approved the plan to construct steam railroad tracks on Key Highway from Lawrence St. to Light St., along the harbor, at a cost of about \$46,000. H. K. McNay is City Engineer.

Md., Baltimore.—The Pennsylvania Railroad has purchased adjacent land and will enlarge its freight yard at President Street Station. Gamble Latrobe is general agent and F. Duane division engineer, both at Baltimore.

Miss., Beaumont.—The New Orleans, Mobile & Chicago Railroad Co. is reported surveying for its contemplated independent line to New Orleans, about 100 miles. B. V. Wright is chief engineer and W. F. Owen president, at Mobile, Ala.

N. C., Hickory.—O. M. Litaker and Frank McComb are reported interested in a plan to build an electric railway from Hickory to Henry River, about five miles.

N. C., Rockingham.—Wm. Gillespie of Cheraw, S. C., is reported interested in plans for the proposed railroad from Rockingham to Cheraw, about 25 miles.

N. C., Statesville.—The County Commissioners are reported to have ordered the

issue of Statesville Air Line Railroad bonds thus: Turnersburg township, \$35,000; Eagle Mills township, \$20,000; Union Grove township, \$10,000. They are 30-year 6 per cents. The line will be 62 miles long, from Statesville to Mount Airy, N. C., and something more than 12 miles of grading have been done. W. D. Turner is president.

N. C., Wilson.—A special election is to be held July 8 to vote on \$30,000 of township bonds to aid construction of the proposed Virginia & Eastern Carolina Railway from Henderson to Wilson. J. M. Turner is president at Henderson, N. C.

N. C., Waynesville.—John P. Swift of Waynesville says that the proposed Waynesville & Canton Electric Railway Co. is in an embryonic state only, but it is proposed to build a line of 12 miles from Hazlewood to Canton, N. C., via White Sulphur Springs and Lake Junaluska, which would require several small trestles. Alden Howell and Henry T. Sharp are also interested.

Okla., Clinton.—The Clinton & Oklahoma Western Railway, according to a report from Anadarko, will build an extension from Clinton to Chickasha via Anadarko, about 70 miles. Guy V. McClure is chief engineer at Oklahoma City, Okla.

Okla., Tulsa.—The Public Service Co. of Oklahoma has acquired light and power properties in Tulsa, Guthrie, Vinita, Atoka, Lehigh, Coalgate and Chickasha, and contemplates, it is stated, building interurban railways. Capital authorized \$3,000,000. Directors are Fred. W. Insull, Oklahoma City, Okla., president; Martin J. Insull, Chicago, Ill., vice-president; Samuel Insull, also of Chicago; Paul M. Galloway of Tulsa, Okla., and Galen Grow of Guthrie, Okla. Burton French is secretary, and R. F. Frank, treasurer.

S. C., Alcolu.—President R. J. Alderman of the Alcolu Railroad Co. denies the recent press report that it would extend its line to Sumter, S. C., and says there is no foundation for it. The company does not expect to build any extension.

S. C., Florence.—The South Carolina Western Railway, says a report, has begun construction of an extension from Florence to Poston, S. C., about 30 miles. W. R. Bonham, Hamlet, N. C., is president.

S. C., McBee.—William Moncre of Durham, N. C., according to a local report, is surveying for a railroad from McBee, S. C., to Monroe, N. C., about 43 miles.

Tenn., Chattanooga.—The Chattanooga Traction Co. has completed grading of its line from Chattanooga to Waldens' Ridge, 10½ miles, and is preparing to begin track-laying, for which rails have been ordered. C. E. James and others are interested.

Tenn., Franklin.—A late report says that the Middle Tennessee Traction Co. has begun construction of its line from Franklin to Shelbyville and Fayetteville, Tenn., 72 miles, the Interurban Construction Co. doing the work. John A. Pitts of Nashville is president; L. W. Buford of Franklin, vice-president; C. R. Cockle of Nashville, secretary; O. D. Berroth, treasurer; P. E. Cox, general manager and purchasing agent, and G. B. Howard, chief engineer, all at Franklin; capital \$250,000, of which \$10,000 is issued. Bonds authorized at \$30,000 per mile.

Tenn., Memphis.—Contract for the substructure of its proposed bridge over the Mississippi River has been awarded by the Arkansas & Memphis Railway Bridge & Terminal Co. to the Union Bridge & Construction Co. of Kansas City, Mo., the cost of the substructure being given at \$1,250,000. Work is to begin immediately. Modjeska & Angier of Chicago are engineers. C. A. Morse, Chicago, is chief engineer for the Rock Island lines, which are back of the local company. K. G. Williams, 387 East Calhoun Ave., Memphis, Tenn., is engineer in charge.

Tex., Austin.—The Guadalupe Valley Traction Co., capital \$100,000, has filed charter and proposes to construct a railroad to be operated by electric, gasoline or other motive power from Austin to San Antonio, Tex., about 82 miles. Headquarters at Seguin, Tex. Directors are W. B. Dunlap and Walter J. Crawford of Beaumont, Tex.; E. W. Brown of Orange, Tex.; J. M. Abbott and J. M. Abbott, Jr., of Seguin, Tex. A. B. Axell, engineer, is quoted saying that construction will begin immediately.

Tex., Christine.—The Artesian Belt Railroad Co., says a report, has graded its extension (now building from Christine to Crowther, 17 miles) several miles into Atascosa county. H. E. Hildebrand of San Antonio is president.

Tex., Crane.—Hann & Kendall, a real-estate firm of Dallas, Tex., say that a deal is on

with Chicago and Milwaukee capitalists for 69,000 acres of land in Crane county, Texas, and they propose to build a railroad across the county from north to south, connecting the Texas & Pacific and the Kansas City, Mexico & Orient railroads. This would require a line 40 or 50 miles long.

Tex., Elysian Fields.—The Marshall & East Texas Railway, says a report from Winnsboro, will be extended about 100 miles south from Elysian Fields to Newton, Tex., connecting there with the Orange & Northwestern Railway of the Frisco lines. J. E. Yotaw is vice-president and general manager, and R. J. Lockwood chief engineer, both at Marshall, Tex.

Tex., Fredericksburg.—The Fredericksburg, San Antonio & Northern Railroad Co. is reported to have laid 4½ miles of track on its 24-mile line from Fredericksburg Junction to Fredericksburg, Tex. Less than 300 feet of the 900-foot tunnel remains to be cut through.

Tex., Galveston.—The Galveston, Houston & Henderson Railroad Co. has authorized construction of 10 miles of additional sidetracks on the west end of Galveston Island, and two miles at Texas City Junction. On the main line five miles of heavy rails are to be laid between Virginia Point and La Marque. J. H. Hill is vice-president and general manager at Galveston.

Tex., Houston.—Part of the proceeds of an issue of \$30,000,000 of 5 per cent. two-year collateral trust notes which the Southern Pacific Co. proposes to issue will, it is understood, be used for improvements and construction in Texas and Louisiana. W. G. Van Vleet is vice-president and general manager at Houston, Tex.

Tex., Matador.—The Quanah, Acme & Pacific Railway, says a report, has completed tracklaying to its terminus at Roaring Springs, 42 miles from Paducah and four miles from Matador, from which point a connection will be constructed. Surveys are reported in progress from Roaring Springs, Tex., to Roswell, N. M. A. F. Sommer, Quanah, Tex., is engineer. G. A. Linder, it is reported, is making survey for the Matador & Northern, which is the name of the connecting line.

Tex., Velasco.—The Houston & Brazos Valley Terminal Co., capital stock \$30,000, has been chartered for business in the vicinity of Velasco and Freeport, Tex. Directors are Felix Jackson, who is president and general manager of the Houston & Brazos Valley Railroad at Velasco; James A. Baker and C. E. Schaff, the latter being president of the Missouri, Kansas & Texas Railway at St. Louis, Mo.; E. R. Cobb of Freeport and W. A. Webb of Dallas, Tex., the latter being general manager of the M., K. & T. system.

Va., Abingdon.—The Callahan Construction

Co. of Knoxville, Tenn., which has been awarded the contract for the extension of the Virginia-Carolina Railway from Green Cove, Va., to Todd, N. C., 40.5 miles, will, it is reported, be ready in a few days to let subcontracts. T. W. Morris is superintendent in charge at Abingdon.

Va., Charlottesville.—Survey is reported in progress for an electric railway from Charlottesville to Albemarle, 12 miles, to connect with the Chesapeake & Ohio Railway there. The Charlottesville & Albemarle Railway Co. of Charlottesville may be able to give information.

W. Va., Beckley.—The Virginian Railway, says a report, contemplates building second track for four miles and additional sidings in connection with the tunnel construction and line revision at Jennys Gap awarded to W. W. Boxley & Co. of Roanoke, Va., some time ago. H. Fernstrom, Norfolk, Va., is chief engineer.

W. Va., Bluefield.—The Virginia Railway Co. denies the recent local report that it had awarded contract for a tunnel between Princeton and Merrimac.

W. Va., Martinsburg.—An official of the Cumberland Valley Railroad is quoted saying that bids have been invited for 87,000 cubic yards of work on revision of grade from the Potomac River to Berkeley Station, W. Va., 8 miles, and proposals are expected to be asked to erect a single-track bridge in place of the present bridge over the river. G. C. Koons, Chambersburg, Pa., is chief engineer.

W. Va., New Martinsville.—The County Court of Wetzel county, says a local report, has voted \$40,000 of Magnolia district bonds to Joseph Fucy, contractor, to complete the Clarksburg Northern Railroad between New Martinsville and Middlebourne, W. Va., 13 miles, within a year. Grading is completed and some track laid.

STREET RAILWAYS

Ala., Birmingham.—An extension of the Birmingham Railway, Light & Power Co.'s railroad to Roebuck Springs and the Golf and Country Club is proposed. W. W. Crawford, Birmingham, can give information.

Tex., Dallas.—Citizens of Dallas, it is stated, contemplate constructing a street railway about a mile long from the Junius Heights or Mt. Auburn line. The Dallas Electric Corporation may give information. E. T. Moore is manager.

Va., Richmond.—The franchise bid of the Virginia Railway & Power Co. for its proposed extension on Broad St. from Robinson St. to Rosemeath Rd., and thence to Cary St., has been accepted. A branch on Shepard St. from Broad St. to Leonard St. is also to be built.

also approaches; plans and specifications at office of W. D. McLain, chairman, Newport, and with Wm. J. Parks, engineer, Citizens' Bank Bldg., Pine Bluff, Ark.

Bridge Construction.—Bibb county, Georgia, will open bids July 15 for four reinforced concrete girder type bridges, 100 feet long by 24 feet wide; plans and specifications with clerk of County Commissioners, Macon, and Wilbur J. Watson & Co., engineers, Charlotte, N. C.

Bridge Construction.—York County Commissioners receive bids until June 19 at clerk's office, Yorktown, Va., for construction of two concrete bridges; over Smith's Creek near Lee Hall and Harrods Mill Creek near Oriana, Va.; 14 feet and 18 feet, respectively; 16-foot roadway; plans and specifications at clerk's office; blueprints obtainable at office of Childrey-Sunday Company, Richmond, Va.; P. St. J. Wilson, State Highway Engineer, Richmond, Va.

Bridge Construction.—County Judge receives bids until June 14 at Louisa, Ky., for erection of iron bridge across Catt Creek; two spans riveted trusses of 85 feet and 41 feet spans, and one I-beam span of 22.4 feet; two concrete piers; bids received for concrete and foundation work separately or as a whole; specifications on file at office of County Engineer; B. J. Calloway, C. R. E.

Bridge Construction.—Bids received June 23 at King William, Va., for construction of bridge across Pamunkey River, between Hanover and King William; steel superstructure; one standard 119-foot span; one 37-foot and one 29-foot span; concrete substructure, this to include tearing down old bridge; plans and specifications at office of P. St. J. Wilson, State Highway Commissioner, Richmond, Va., and office of Clerk of Circuit Court, King William.

Bridge Construction.—Tazewell County Commissioners receive bids at Tazewell, Va., June 20 to construct steel and concrete bridge across Clinch River near Richlands; 158 feet long; two spans, one 37 feet and one 119 feet; 12-foot roadway; plans and specifications at office of clerk at Tazewell; blueprints obtainable from Childrey-Sunday Company, Richmond, Va., at cost of 35 cents and postage.

Bridge Material, etc.—Bids received until July 1 at office of Commissioner of Roads and Revenues for Pulaski county at Hawkinsville, Ga., for furnishing iron material for and repairing bridge over Ocmulgee River; plans and specifications and all information necessary obtainable on application at office of commissioners; H. C. Brown, clerk.

Broom Machinery.—Charles D. Watkins, China Grove, N. C.—Prices on broom machinery.

Building Materials.—William A. Liller, Keyser, W. Va.—Prices on ¾-inch by 3½-inch face No. 3 yellow pine ceiling; 4-inch common poplar bevel siding; No. 1 common poplar finish; No. 1 common poplar and yellow pine moldings; 4-foot plastering lath; patent plaster; lime; common and fire brick; 22-inch grate, 6-inch terra-cotta flue rings, paints, roofing, nails and hardware.

Building Materials.—J. A. Patrick, Johns, Miss.—Prices on building materials for \$10,000 school building.

Building Materials.—J. T. Moon, Antlers, Okla.—Prices on glass, I-beams and roofing material for \$3000 business building.

Building Materials.—Carter Bros. & Bird, Bluefield, W. Va.—Prices on building materials.

Camping Equipment.—Doullut & Williams, American National Bank Bldg., Shreveport, La.—Prices on complete camping equipment for 100 men; will consist of tents to house four men each, dining-room tent, kitchen tent, range, cooking utensils, knives and forks, spoons, plates, etc.; also lamps, lanterns, cots, blankets, pillows, water filter, time checks, pails, shovels, etc.

Canning Machinery.—Joseph Lee, Phoebus, Va.—Correspondence with manufacturers of canning machinery.

Cars, etc.—Navy Department, Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-General, United States Navy, Washington, D. C., opens bids June 17 for furnishing 16 core oven cars, four ladders (four and eight tons capacity), schedule 5528; pedestal type grinder and three cold-saw cutting-off machines, schedule 5529; delivery Navy-yard, Washington, D. C.; also receives bids until June 17 for furnishing horning and wiring press, schedule 5546; delivery Navy-yard, Norfolk, Va.; for copies of schedule apply to navy pay office nearest navy-yard.

Cars.—Harvey Baker, Box 833, Richmond, Va.—15 or 20 freight cars, 36-inch gauge, 10 or 15 tons capacity. Give prices, specifications and location first letter.

Charcoal.—Memphis Mining & Manufacturing Co., Potts Camp, Miss.—Wants list of charcoal by-products plants operating in Arkansas, Mississippi, Tennessee and Louisiana.

Concrete Mixer.—Lake Worth Dredging & Construction Co., West Palm Beach, Fla.—Half-yard concrete mixer.

Condensing Machinery.—C. D. Rorer, chairman factory committee, Commercial Club, Eugene, Ore.—Addresses of manufacturers of machinery for milk condensery.

Contractors' Machinery and Supplies.—Carter Bros. & Bird, Bluefield, W. Va.—Prices on contractors' machinery and supplies.

Cotton Waste.—Harvey & Harvey, Calle Habana No. 17, Havana, Cuba.—Correspondence with manufacturers of cotton waste; view to representation.

Crusher.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa.—Second-hand No. 5 McCully gyratory crusher.

Drainage.—Proposals for construction of drainage canals, Stewarts Creek Drainage District, Harnett county, received by Board of Drainage Commissioners, John M. Hodges, chairman, Dunn, N. C., until June

2; about 13 miles canals and ditches and 134,471 yards excavation; plans and profiles, etc., furnished on application to W. K. Allen, engineer, Wilmington, N. C.

Dredge Machinery.—Lake Worth Dredging & Construction Co., West Palm Beach, Fla.—Bids on machinery for two 1½-yard dipper dredges; hulls being constructed by company.

Dredging.—Bids received until June 10 by Commissioners Upper Third Creek Drainage District, Iredell county, Statesville, N. C., for dredging creek from near Alexander county line to old Watt Mill place, about eight miles long, with excavation of 185,000 cubic yards; width of channel, 18 to 22 feet. For further information address L. O. White, engineer, Statesville.

Dredging and Filling.—Orange County Commissioners, Orange, Tex., receive bids until June 16 for dredging and filling 15,000 cubic yards for bridges as follows: Cove Bridge, West Orange, Bland, Black's Ferry and Upper Beaumont Rd. bridges; form of bid obtainable at County Engineer's office; A. H. Cole, County Clerk.

Electric-light Plant.—F. L. Moule, Columbia, S. C.—Prices on equipment for 600-light plant, including gasoline power.

Electric Fixtures.—J. A. Moor, Henderson, N. C.—Prices on electrical fixtures.

Electric-lighting System.—Proposals received at Bureau of Yards and Docks, Navy Department, Washington, D. C., until July 12 for installing an electrical distribution and street-lighting system at naval hospital, Chelsea, Mass.; estimated cost \$4000. Specifications obtainable on application to bureau. H. R. Stanford, Chief of Bureau.

Electric Wiring.—See "Heating, etc., Smithfield, N. C."

Electrical Machinery.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until June 24 to furnish and install at naval engineering experiment station, Annapolis, Md., one Diesel engine, one alternating-current generator, one direct-current oil engine-driven exciter unit, one switchboard for power and lighting plant and one motor generator set. Applications for proposals should refer to schedule 5532. Blank proposals furnished upon application to navy pay office, Baltimore, Md., or to bureau. T. J. Cowie, Paymaster-General, U. S. N.

Electrical Machinery.—See "Engines, etc."

Elevator.—Treasury Department, office of supervising architect, Washington, D. C. Proposals received until June 30 for hydraulic lift at U. S. Treasury Building, Washington, in accordance with specifications, copies obtainable at this office, at discretion of supervising architect.

Engine.—See "Boiler and Engine."

Engine.—Harvey Baker, Box 833, Richmond, Va.—225 to 250-horse-power engine. (See "Boiler and Engine.")

Engines.—Jasper Natural Gas Co., Jasper, Ala.—Correspondence with manufacturers of natural gas engines; internal combustion.

Explosives.—Standard Mica Co., F. A. Summer, president, Asheville, N. C.—Prices on blasting powder and other explosives.

Engines, etc.—People's Light, Heat & Power Corporation, West Point, Va.—Prices on two 150-165 horse-power gas engines, with producers, and two 125 K. V. A. alternators.

Feed-water Heater.—City Commissioners, Clarksdale, Miss.—Bids opened June 12 for 500-horse-power feed-water heater, delivered f. o. b. Address M. W. Purnell, City Clerk.

Feed-water Heater.—Pope Manufacturing Co., Washington, Ga.—Second-hand open feed-water heater, 300 to 250 horse-power.

Floor Covering.—J. O. Grogan, 113 Church St., Montgomery, Ala.—Prices on floor covering for church.

Gas Producers.—See "Engines, etc."

Heating, etc.—Cotter-Underwood Company, Smithfield, N. C., opens bids June 13 for heating, plumbing and electric wiring for store building.

Heating, etc.—Bank of Smithfield, Smithfield, N. C., opens bids June 13 for heating, plumbing and wiring for bank building.

Heating Equipment.—Mutual Equipment Co., Richmond, Va.—Prices on low-pressure boilers for heating purposes; also radiators; view to agencies.

Heating Plant.—J. A. Patrick, Johns, Miss.—Prices on steam-heating plant for \$10,000 school building.

Heating, Plumbing and Wiring.—

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Backing Board.—Basic Furniture Co., Waynesboro, Va.—Addresses of manufacturers making specialty of utility or backing board for mirror backs.

Bells.—Cordele Sash, Door & Lumber Co., Cordele, Ga.—Information and prices on church chimes.

Boiler.—Texas Sand & Gravel Co., T. J. Palm, secretary-treasurer, 1406 Morrow St., Waco, Tex.—Prices on second-hand portable boiler, 80 to 100 horse-power.

Boiler and Engine.—Harvey Baker, Box 833, Richmond, Va.—Four 150-horse-power high-pressure boilers and one 225 to 250-horse-power engine.

Boiler and Engine.—W. T. Meadows, Williamston, N. C.—Interested in second-hand 100-horse-power boiler and 60 to 80-horse-power engine; boiler to pass insurance inspection.

Boilers.—See "Heating Equipment."

Brick.—First Methodist Episcopal Church, Rev. Herman G. Porter, pastor, 149 N. Ochoa St., El Paso, Tex.—Prices on dark-colored rough-face hard brick.

Bridge Construction.—Proposals received by Board of Improvement, Bridge Improvement District No. 1, Newport, Ark., until June 30 for construction of reinforced concrete bridge, 42 feet wide, 200 feet long,

Bids received by J. H. Warner, Commissioner of Public Utilities, Grounds and Buildings, Chattanooga, Tenn., until June 20 for material, labor, etc., for installation of complete sanitary plumbing system, low-pressure steam, gravity return heating system and wiring for electric lighting in South Chattanooga public school; plans and specification prepared and furnished by Snoddy & Bull, 815 James Bldg., Chattanooga; plans may also be seen at office of Commissioner of Public Utilities, Grounds and Buildings, 34 Municipal Bldg.

"Isolated" Water-works.—J. A. Patrick, Johns, Miss.—Prices on water-works for \$10,000 school building.

Iron.—B. M. Kershner, Emmitsburg, Md.—Addresses of dealers in second-hand structural iron.

Laundry Machinery.—Church Home orphanage, Yorkville, S. C.—Prices on equipment for small laundry.

Levee.—Mississippi River Commission, First and Second Districts, U. S. Engineer Office, Custom-house, Memphis, Tenn.—Proposals received until June 20 for about 1,900,000 cubic yards levee work. Information on application. E. M. Markham, Major, Engineers.

Levee Construction.—Mississippi River Levee Commissioners, Greenville, Miss., receive bids until June 17 for construction of about 2,300,000 cubic yards enlargement and new levees. For information address W. J. Shackelford, chief engineer.

Levee Construction.—Proposals in duplicate for 5,000,000 cubic yards levee work received by St. Francis Levee Board, O. N. Killough, president board of directors, Marion, Ark., until July 1; information and blanks obtainable on application to B. G. Covington, chief engineer, 664 Randolph Bldg., Memphis, Tenn.

Levee Construction.—Proposals received by directors Plum Bayou Levee District, J. T. Lipscomb, secretary, England, Ark., until July 7 for construction of about 6000 feet new levee; approximately 100,000 cubic yards; plans and specifications on file at office of secretary, at England, and of Dickinson & Watkins, engineers, State Bank Bldg., Little Rock, Ark.

Lighting.—J. A. Patrick, Johns, Miss.—Prices on electric lighting for \$10,000 school building.

Lighting Equipment.—J. O. Grogan, 113 Church St., Montgomery, Ala.—Prices on electric lighting for church building.

Lighting System.—Royal & Phillips, Gardner, Fla.—Prices on lighting system for country residence.

Lumber.—Navy Department, Bureau of Supplies and Accounts, T. J. Cowie, Paymaster-General, United States Navy, Washington, D. C., opens bids June 24 for furnishing 10,000 feet white oak for boat bending purposes, 65,000 feet No. 2 yellow pine and 28,000 feet No. 1 white pine, schedule 5558; delivery Navy-yard, Norfolk, Va.; for copies apply to navy pay office nearest navy-yard.

Machine-plant Equipment.—J. E. Moss Iron Works, Wheeling, W. Va.—Prices on new or second-hand punching and shearing machinery for structural steel, air compressors, air riveters, structural saw, motors and various other machines.

Metal Windows.—Charles D. Watkins, China Grove, N. C.—Prices on iron-frame windows.

Mining Equipment, etc.—Standard Mica Co., F. A. Summer, president, Asheville, N. C.—Prices on blasting powders and other explosives, drills, picks, shovels, barrows, etc.

Mixing Machinery.—Homer Cotton Oil Co., Homer, La.—Addresses of Southern manufacturers of fertilizer-mixing machines.

Musical Instruments.—Cob Wilson, Bailey, N. C.—Addresses of manufacturers of musical instruments.

Overall Machinery, etc.—J. F. Woodward, Dayton, Tenn.—Equipment of machinery and supplies for overall factory.

Paving.—Proposals received by City Commissioners, Hartselle, Ala., until June 13 for material and labor to construct about 22,000 square yards tarvin concrete on concrete foundation; 7000 linear feet concrete combined curb and gutter; 1700 linear feet concrete gutter; 1000 square yards concrete sidewalks; plans, specifications, etc., on file in office of City Engineer, R. A. Burlinson.

Paving, etc.—Proposals received by city of Grenada, Miss., at office of L. B. James, City Recorder, until July 3 for construction of 14,000 square yards vitrified brick, wood block, concrete and bitulible pavement, 4000 linear feet concrete curb and all necessary grading, water and sewer connections.

Paving.—Bids received by City Clerk, Poplar Bluff, Mo., until June 30 for 36,201 square yards vitrified brick pavement, 18,966 feet curb and gutter, 1969 feet headers, 10,531 cubic yards excavation, 16 basins, 120 feet 8-inch and 770 feet 12-inch pipe; Edw. C. Thomas, City Engineer.

Paper Milk Bottles.—Maurice Wescott, 15 Poindexter St., Elizabeth City, N. C.—Addresses of manufacturers of or dealers in paper milk bottles.

Paper Bags.—Marlbrook Lime Co., Roanoke, Va.—Prices on paper bags for ground marl.

Paving.—City of New Decatur, Ala., receives bids until June 16 for grading, curbing, guttering and paving certain streets with asphaltic concrete; work will embrace furnishing and setting 17,000 linear feet concrete curb and gutter; foundations and surfacing 85,000 square yards of pavement; specifications obtainable from City Clerk; R. H. Wolcott, Mayor; Henry Hartung, clerk.

Paving.—Proposals received by D. G. Leahy, Recorder, Knoxville, Tenn., until June 13 for improvements, District 98, on White Ave. and 2d St.; 1680 square yards paving; 700 cubic yards excavation; 1072 linear feet concrete curb, etc.

Paving.—City of Jacksonville, Fla., opens bids June 12 for paving 100,000 square yards roadways with vitrified brick on concrete base, on sand base, asphaltic concrete, granitoid and dolerite; L. D. Smoot, chief engineer, Engineer Bldg., Jacksonville.

Paving, etc.—Bids addressed to D. G. Leahy, recorder, Knoxville, Tenn., received until June 13 for paving and otherwise improving district No. 98, White Ave. and 2d St.; paving 1680 square yards, excavation 700 cubic yards, concrete curb 1072 linear feet and other miscellaneous items; specifications and proposal sheets obtainable on application to City Engineer.

Paving Materials.—Office of E. R. Conant, chief engineer, Savannah, Ga.—Proposals received until June 25 (extended date) by Committee on Streets and Lanes for furnishing 17,000 square yards asphalt paving block or creosoted wood paving block; further information obtainable on application to this office.

Paving.—Proposals addressed to Board of Awards, Baltimore, Md., received at office of City Register, City Hall, until June 18 to grade, curb and pave various streets included in following contracts: Contract No. 58, 14,400 square yards vitrified block; No. 59, 5050 square yards vitrified block; No. 60, 11,000 square yards granite block, and No. 61, 9510 square yards granite block or Hassam granite block and 1500 square yards vitrified block; all on concrete base; specifications and proposal sheets at office of Paving Commission, R. Keith Compton, chairman, City Hall; \$5 deposit for specifications covering each contract; plans and profiles on file with H. Kent McCay, chief engineer.

Piping.—Sealed proposals for furnishing cast-iron pipe and specials for filtration plant, Water Department, Contract No. 14, addressed to Board of Awards, received at office of City Register, City Hall, Baltimore, Md., until June 18; plans on file in office of Water Engineer, City Hall; plans and specifications at office of Water Engineer on or after June 9; charge of \$5 for each set of plans and specifications; refunded upon return of plans and specifications before June 21; specifications used in making bid considered returned; certified check \$1000; the work consists in furnishing f. o. b. cars Baltimore, Md., about 369 tons B. & S. pipe, 190 tons B. & S. standard specials, 90 tons B. & S. special specials, 370 tons flange specials; Ezra B. Whitman, Water Engineer.

Paving.—Office of Commissioners for Opening Streets, Annex Improvement Commission, Baltimore, Md.—Proposals addressed to Board of Awards, care of City Register, received by City Register at his office in City Hall until June 18 to grade, curb and pave following streets with bituminous concrete under contract No. 121: Guilford Ave., from 27th St. to 31st St.; 28th St., from Calvert St. to Guilford Ave.; 30th St., from Calvert St. to Guilford Ave.; approximately 9520 square yards; specifications upon application at office of commissioners, City Hall, on and after June 6; plans and profiles also on file; deposit of \$5 required for each set of specifications covering contract, same to be refunded if bid is filed; Eugene E. Grannan, president Commissioners for Opening Streets; Eugene F. Rodgers, secretary.

Plaster Machinery.—J. M. Richardson, manager, Lock Box 302, Aiken, S. C.—Prices on machinery for manufacture of hard wall

plaster; probably locate plant in Augusta, Ga.

Plumbing.—See "Heating, Plumbing and Wiring."

Plumbing.—See "Heating, etc., Smithfield, N. C."

Plumbing.—J. C. Traylor, Edna, Tex.—Prices on bathroom fixtures.

Plumbing.—Treasury Department, office of Oscar Wendereth, supervising architect, Washington, D. C.—Proposals received until July 7 for alterations in plumbing system of United States postoffice and courthouse, Baltimore, Md., in accordance with specifications and drawings obtainable at this office at discretion of supervising architect.

Pumps.—Harris Granite Quarries Co., Salisbury, N. C.—One or more No. 2 or No. 3 second-hand (strictly first-class) pulsometer pumps.

Rails.—Sabel Bros., Jacksonville, Fla.—Five miles 40-pound relaying or new rails, with angle bars.

Road Construction.—District No. 1, Covington county, O. W. Conner, chairman, Seminary, Miss., will open bids August 4 for road construction; \$50,000 available; engineer, Xavier A. Kramer, Magnolia, Miss.

Road Construction.—Bids received by Chancery Clerk until June 16 for construction of 15.2 miles sand-clay road on Raleigh and Bay Springs Rd., Beat 1, Smith county, Mississippi. Address S. B. Snowden, engineer, Raleigh, Miss.

Road Machinery.—T. M. Cherry, Norton, Va.—Prices on second-hand 10-ton steam road roller for work on limestone macadam roads from 12 to 16 feet wide.

Road Construction.—Bids received by Board of Supervisors, Wise county, at clerk's office, Wise Court House, Va., until June 24 for grading 15.8 miles, divided into four sections, and macadamizing 44.3 miles, in seven sections; plans and specifications on file in clerk's office, Wise, and at office of County Engineer, Norton, Va.

Road Construction.—Orange County Good Roads Commission, Chapel Hill, N. C., invites proposals until July 7 for clearing, grading and draining 2½ miles improved highway from Mehane to Hillsboro, N. C.; sections about 6000 feet long; plans and specifications at office of S. Strudwick, chairman, Hillsboro, and of R. T. Brown, Chapel Hill. Address chairman.

Road Machinery.—Parker & Carroll, Box 1068, San Antonio, Tex.—Addresses of manufacturers of gasoline road rollers.

Sawmill Machinery.—W. T. Meadows, Williamson, N. C.—Interested in planing machinery; would consider modern slightly-used machinery.

Seating.—J. O. Grogan, 113 Church St., Montgomery, Ala.—Prices on pews.

Sewers.—Bids received at office of City Auditor, Tulsa, Okla., until June 16 (extended date) for construction of sanitary sewers in districts No. 86 and 87, in Mitchell-Crosby Addition, in portions of blocks 1, 2 and 3; plans, profiles and specifications in office of T. C. Hughes, City Engineer.

Sewers.—Proposals addressed to John W. Foster, Commissioner of Streets, Sewers and Public Improvements, Waco, Tex., received until June 20 for construction of sewer line from present Jefferson St. main to North 4th and Proctor Sts.; work will include laying 2000 linear feet 15-inch, 3000 linear feet 8-inch and 1000 linear feet 6-inch tile pipe and 1150 linear feet 16-inch cast-iron pipe in place, together with all necessary trestle work, specials and excavation, etc.; specifications, profiles, etc., in office of C. E. Byars, City Engineer.

Sewer Construction.—City of Henry, Okla., receives bids until June 25 for construction of system of main sanitary sewers; Benham Engineering Co., American National Bank Bldg., Oklahoma City, Okla., consulting and supervising engineer.

Sewer Construction.—Bids received until June 12 by city of Polytchnic, Tex., for 16,000-foot sewer system; plans and specifications by Nagel & Petersen, Muskogee, Okla., and Dallas, Tex.

Sewers.—Bids received at office of W. C. Rogers, City Clerk, Enid, Okla., until June 14 for construction of sanitary sewer system in Sewer District No. 57; plans, profiles, etc., obtainable at office of B. F. Lewis, City Engineer.

Shear.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until June 24 to furnish at Navy-yard, Charleston, S. C., one gate shear, complete, with motor drive. Applications for proposals should refer to schedule 5539. Blank proposals furnished upon appli-

cation to navy pay office, Charleston, S. C., or to bureau. T. J. Cowie, Paymaster-General, U. S. N.

Shells, etc.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until June 24 to furnish at Navy-yard, Washington, a quantity of shells and steel angles. Applications for proposals should refer to schedule 5550. Blank proposals furnished upon application to bureau. T. J. Cowie, Paymaster-General, U. S. N.

Skylights.—A. J. Matheson, care Planters' National Bank, Beantonsville, S. C.—Prices on skylights for two or three buildings.

Sluice Gates.—Sealed proposals for furnishing sluice gates for filtration plant, Water Department, contract No. 12, received at office of City Register, City Hall, Baltimore, Md., until June 18; specifications at office of Water Engineer on and after June 9; \$5 for each set of specifications, refunded upon return of specifications before June 21; specifications used in making bid considered as returned; certified check, \$1000; work consists of furnishing f. o. b. cars Baltimore 49 rectangular gates, ranging in size from 84 inches by 84 inches to 24 inches by 24 inches, inclusive; one circular gate 60 inches diameter, and eight circular gates 18 inches diameter; Ezra B. Whitman, Water Engineer.

Steam Shovel.—Harvey Baker, Box 833, Richmond, Va.—Thew shovel. State price and location first letter.

Steel Angles.—See "Shells, etc."

Steel (or Iron) Cans.—Georgia Pine Turpentine Co. of New York, 158 Perry St., New York.—Iron or steel cans, 5 to 10 gallons capacity, for turpentine; wants to correspond with manufacturers.

Steel Building.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa.—Steel building of 19,000 square feet area.

Stump-pulling Machinery.—J. W. Shannon, Babcock, Ga.—Correspondence with manufacturers of machinery for pulling stumps and clearing land.

Steel Doors, Gratings, etc.—Proposals received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until July 7 for furnishing steel doors and gratings for batteries, locomotive tires, scrubbing brushes, fire-clay, coal tar, lumber and piles. Blanks and general information relating to this circular (780) may be obtained from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney Central Bldg., New Orleans, and 1086 North Point St., San Francisco; also from U. S. Engineer offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash. F. C. Boggs, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

Telephone Equipment.—War Department, office of Chief Signal Officer, W. L. Clarke, Major, Disbursing Officer, Washington, D. C., receives bids until June 15 for furnishing miscellaneous lot of telephone equipment, including cabinets, coils, plugs, magneto testing sets, terminals, condensers, springs, terminal strips, hook switches, etc. Send for specifications.

Vacuum Cleaner.—J. A. Moor, Henderson, N. C.—Prices on vacuum cleaning system operated from cellar.

Valves.—Water-works department, J. H. Fewell, superintendent, Jackson, Miss.—Prices on 25 hub and gate valves ranging in size from 24 to 4 inches. Specifications in superintendent's office.

Valves.—Sealed proposals for furnishing valves for filtration, Water Department, contract No. 12, received at office of City Register, City Hall, Baltimore, Md., until June 18; specifications at office of Water Engineer on and after June 9; \$5 for each set of specifications, refunded upon return of specifications before June 21; specifications used in making bid will be considered as returned; certified check, \$1000; work consists in furnishing f. o. b. cars Baltimore 222 valves, ranging in size from 4 inches to 36 inches; Ezra B. Whitman, Water Engineer.

Water System.—J. C. Traylor, Edna, Tex.—Prices on windmill, tank and piping for residence.

Water-works.—Proposals received by Mayor and Board of Aldermen, Goldsboro, N. C., until July 1 for erecting pumping station and filter plant; work consists of brick pumping and filter building with 1,500,000 gallons capacity (mechanical filter),

resetting old pumps and about 6000 feet 12-inch force mains; plans and specifications at office of J. R. Higgins, Mayor, and at office of Gilbert C. White, engineer, Charlotte, N. C.; specifications and building form will be mailed on application to engineer.

Well-drilling Machinery.—Tri-State Oil Co., P. J. Glass, president, Mobile, Ala.—Prices on machinery for drilling oil or gas wells, including boilers, engines, pumps, pipe and rotary rigs.

Wiring.—See "Heating, Plumbing and Wiring."

Woodworking Machinery.—Joseph Lee, Phoebus, Va.—Correspondence with manufacturers of machinery for manufacturing furniture.

Woodworking Machinery.—High Point Furniture Co., High Point, N. C.—Good rebuilt or second-hand machines, guaranteed, as follows: Double-end tenoner, 27-inch single surfacer divided roll, 42-inch triple-drum sander, 9 or 10-inch four-sided molder, dovetailer, hand rip saw, resaw, two double shapers, swing cut-off saw, two-spindle carvers, variety saw, trim saw, hollow chisel mortiser, rounder, endless feed glue jointer, post boring machine, automatic turning lathe, belt sander, bed clamp, case clamp, 36x72-inch veneer press, bed lock machine, 2 15-16 shafting, hangers, belting, iron and wood pulleys, and piping and fittings for dry-kilns.

FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS RECORD,

Baltimore, Md., June 11.

Dullness overshadowed the Baltimore stockmarket during the past week, and prices generally receded. In the trading United Railways common sold from 26 to 23½; do. income bonds, 60½ to 59½; do. funding 5s, 86½ to 86; do. notes, 102 to 101; do. 4s, 82½ to 83½; Consolidated Gas, Electric Light & Power common, 101 to 102½; do. preferred, 105 to 104½; Seaboard Air Line common, 14½ to 15.

Bank stocks sold as follows: Merchants-Mechanics', 33½ to 33½; Citizens', 43; Western, 38; Union, 140.

Mercantile Trust sold from 163 to 161½; Maryland Casualty, 90½; Union Trust, 62; Fidelity & Deposit, 148½ to 147½.

Other securities were traded in thus: Houston Oil common, trust certificates, 16 to 14; do. preferred, trust certificates, 58; Atlantic Coast Line convertible debenture 4s, 92½; Baltimore Brick 5s, 80; Chicago Railway 5s, 97 to 96½; Consolidation Coal convertible 6s, 99 to 97½; Maryland Electric 5s, 96½ to 95½; Pennsylvania Water & Power common, 60 to 54; Central Railway (Baltimore) construction 5s, 104; Georgia Southern & Florida 5s, 103½; Georgia, Carolina & Northern 5s, 102½ to 101½; Milwaukee refunding 4½s, 89½; Baltimore Traction (North Baltimore Division) 5s, 104; Seaboard & Roanoke 5s, 101½; Baltimore Brick common, 1½; Baltimore Electric 5s, stamped, 97½ to 96½; Consolidation Coal, 95 to 94; Danville Traction & Power 5s, 92½ to 93; Anacostia & Potomac 5s, guaranteed, 100; Central of Georgia (Mobile Division) 5s, 95½; Georgia & Alabama consolidated 5s, 102; New Orleans, Mobile & Chicago 5s, 51 to 52; Merchants & Miners' Transportation Co., voting trust, 58½; Atlantic Coast Line of Connecticut 5s, 100½; Baltimore Electric preferred, 42½ to 42½; Norfolk Street Railway 5s, 101½; Florida Southern 4s, 85.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended June 11, 1913.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line.....	100	114½	115
At. Coast of Conn.....	100	240	240
Georgia Southern & Fla.....	100	30	30
Ga. South. & Fla. 1st Pfd.....	100	80	90
Maryland & Pennsylvania.....	100	40	40
Seaboard Com.....	100	14	14
United Ry. & Elec. Co.....	50	23½	23½
Bank Stocks.			
Bank of Commerce.....	15	30	30
Exchange.....	100	160	163½
First National.....	100	143	145
Howard.....	10	14½	14½

Merchants-Mechanics'.....	10	33½	33½
Union.....	100	139	140
Western.....	20	37	38½

Trust, Fidelity and Casualty Stocks.			
Fidelity & Deposit.....	50	146	147
Munsey Trust.....	100	101	101
Merc. Trust & Dep.....	50	180½	180½
U. S. Fidelity & Guaranty.....	100	190	195

Miscellaneous Stocks.			
Baltimore Brick.....	100	1	1
Baltimore Electric Pfd.....	50	41½	42½
Con. Gas, Elec. Lt. & P. Com.....	100	100½	103
Con. Gas, Elec. Lt. & P. Pfd.....	100	100	100
Canton Co. (Baltimore).....	100	160	160
Consolidation Coal.....	100	93½	95
G. B. S. Brewing Co.....	100	1½	1½

Railroad Bonds.			
Atlantic Coast 1st 4s.....	89½	89½	89½
At. Coast Conv. Deben. 4s.....	87	87	87
At. Coast Conn. 5s, Cfs.....	99	100½	101
At. Coast S. C. 4s.....	90	90½	91
Balto. & Ohio Conv. 4½s.....	80	80	80
Carolina Central 4s.....	87	89	89
Charleston & West. Car. 5s.....	100	101½	101½
Coal & Iron Railway 5s.....	98	98½	98½
Georgia & Alabama 5s.....	101½	102	102½
Ga., Car. & North. 1st 5s.....	103	103	103
Georgia South. & Fla. 1st 5s.....	103	103	103
New Orleans-Gt. Nor. 5s.....	103	103	103
Petersburg Class B 5s.....	113	113	113
Potomac Valley 1st 5s.....	100	103½	103½
Seaboard 4s, Stamped.....	100	81½	81½
Seaboard & Roanoke 5s.....	101	101½	101½
Southern Railway Co. 5s.....	105	105	105
Virginia Midland 5th 5s.....	104½	104½	104½
Western N. C. Con. 6s.....	100	100½	100½
Wash., Balto. & Annap. 5s.....	84½	84½	84½

Street Railway Bonds.			
Anacostia & Potomac 5s.....	99	99	99
Anacostia & Potomac 5s, Gtd.....	101½	101½	101½
Atlanta Con. Street Railway 5s.....	102½	102½	102½
Balto., Sp. Pt. & C. 4½s.....	95	95	95
Baltimore Traction 1st 5s.....	104	104	104
Balto. Traction (N. B.) 5s.....	103	104	104
Central Railway (Balto.) Con. 5s.....	103½	104½	104½
Charleston City Railway 5s.....	103	103	103
Charleston Con. Elec. 5s.....	96	96	96
Danville Traction & Power 5s.....	92	92½	92½
City & Suburban 5s (Balto.).....	103½	103½	103½
City & Suburban 5s (Wash.).....	102	102	102
Fairmont & Clarksburg Trac. 5s.....	99	99	99
Maryland Electric Railways 5s.....	95½	95½	95½
Monongahela V. Traction 5s.....	93	93½	93½
Norfolk & Portsmouth Trac. 5s.....	86	86	86
Norfolk Railway & Light 5s.....	98	98	98
Norfolk Street Railway 5s.....	101½	101½	101½
United Railways 1st 4s.....	82½	83	83
United Railways Income 4s.....	80	80½	80½
United Railways Funding 5s.....	86½	86½	86½
United Railways Notes.....	101	101½	101½
Virginia Railway & Power 5s.....	93½	93½	93½

Miscellaneous Bonds.			
Ala. Con. Coal & Iron 5s.....	78	78	78
Armed & Sand & Gravel 5s.....	98½	98½	98½
Baltimore Brick 5s.....	80	80	80
Baltimore Electric 5s, Stp.....	95½	96	96
Consolidated Gas 4½s.....	93½	93½	93½
Con. Gas, Elec. Lt. & P. 4½s.....	87	87	87
Consolidation Coal Conv. 6s.....	97½	97½	97½
Consolidation Coal Ref. 5s.....	87½	88½	88½
Consolidation Coal Ref. 4½s.....	87½	87½	87½
Fairmont Coal 1st 5s.....	94	95½	95½
G. B. S. Brewing 1st 4s.....	40	40	40
G. B. S. Brewing Inc. 4s.....	4	97	97
Mt. Vernon-Wood 5s, Cof. Duck 5s.....	69	69	69
Penna. Water & Power 5s.....	89½	89½	89½
United Elec. Lt. & P. 4½s.....	91½	91½	91½

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending June 9.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	100	100
Aiken Mfg. Co. (S. C.).....	55	55
American Spinning Co. (S. C.).....	162	162
Anderson Cotton Mills (S. C.).....	48	48
Anderson Cot. Mills (S. C.) Pfd.....	100	100
Arcadia Mills (S. C.).....	90	90
Arwright Cotton Mills (S. C.).....	99	100
Belton Mills (S. C.).....	100	110
Brandon Mills (S. C.).....	60	60
Brogan Mills (S. C.).....	60	60
Chiquola Mfg. Co. (S. C.).....	100	100
Clifton Mfg. Co. (S. C.) Pfd.....	99	99
Clinton Cotton Mills (S. C.).....	100	100
Courtney Mfg. Co. (S. C.).....	93	93
Dallas Mfg. Co. (Ala.).....	99	99
D. E. Converse Co. (S. C.).....	75	75
Drayton Mills (S. C.).....	90	90
Eagle & Phenix Mills (Ga.).....	106	106
Enasley Cotton Mills (S. C.).....	175	175
Enoree Mfg. Co. (S. C.).....	25	62
Enoree Mfg. Co. (S. C.) Pfd.....	95	100
Gaffney Mfg. Co. (S. C.).....	65	70
Gainesville Cotton Mills (Ga.).....	72	80
Glenwood Cotton Mills (S. C.).....	100	100
Graniteville Mfg. Co. (S. C.).....	135	145
Greenwood Cotton Mills (S. C.).....	57	60
Grendel Mills (S. C.).....	90	100
Hartsville Cotton Mill (S. C.).....	175	175
Henrietta Mills (N. C.).....	100	105
Inman Mills (S. C.).....	100	105
King Mfg. Co. J. P. (Ga.).....	80	85
Lancaster Cotton Mills (S. C.).....	130	130
Lancaster Cot. Mills (S. C.) Pfd.....	97	100
Langley Mfg. Co. (S. C.).....	75	75
Laurens Mills (S. C.).....	115	115
Limestone Mills (S. C.).....	155	155
Lockhart Mills (S. C.).....	50	50
Lockhart Mills (S. C.) Pfd.....	95	95
Loray Cotton Mills (N. C.) Pfd.....	90	90
Mariboro Cotton Mills (S. C.).....	70	70
Mills Mfg. Co. (S. C.).....	90	102
Molloy Mfg. Co. (S. C.).....	90	90
Monarch Cotton Mills (S. C.).....	110	110
Newberry Cotton Mills (S. C.).....	125	130
Ninety-Six Cotton Mills (S. C.).....	130	150
Norris Cotton Mills (S. C.).....	115	115
Orr Cotton Mills (S. C.).....	90	93
Pacolet Mfg. Co. (S. C.).....	99	99
Pacolet Mfg. Co. (S. C.) Pfd.....	95	100
Parker Common.....	29	29
Parker Pfd.....	63	63
Peizer Mfg. Co. (S. C.).....	120	120
Poe Mfg. Co., F. W. (S. C.).....	98	98
Saxon Mills (S. C.).....	130	130
Spartan Mills (S. C.).....	110	125
Trilon Mfg. Co. (Ga.).....	130	130
Tucapau Mills (S. C.).....	310	350
Union-Buffalo (S. C.) 1st Pfd.....	50	50
Union-Buffalo (S. C.) 2d Pfd.....	5	5
Victor Mfg. Co. (S. C.).....	110	115
Warren Mfg. Co. (S. C.).....	80	90

Warren Mfg. Co. (S. C.) Pfd.....	100	105
Washington Mills (Va.).....	25	110
Watts Mills (S. C.).....	106	110
Whitney Mfg. Co. (S. C.).....	105	105
Williamston Mills (S. C.).....	120	125
Wiscasset Mills (N. C.).....	135	135
Woodruff Cotton Mills (S. C.).....	96	100
Woodside Cotton Mills (S. C.).....	100	100

American Bank Reporter

The American Bank Reporter for March, 1913, is issued, this being its seventy-seventh year. It contains much valuable information, and is especially useful to the financial world, comprising such data as alphabetical list of all National, State, savings and private banks in the United States and Canada, names of principal officers, correspondents in principal cities, together with charter number of each National bank, capital, loans, deposits and undivided profits and surplus; also principal loan, trust and investment companies, etc. A list of reliable attorneys in the United States and Canada, alphabetical list of all bank officers, foreign banks and bankers, directors of banks in all the principal cities, synopsis of banking and commercial laws of the various States and Canada, bank statements, statistics, etc., together with a list of towns without banking facilities and nearest banking point, are also given. The book, which is published by the Steurer Publishing Co., Nos. 5-7 Beekman street, New York, has thumb index, is bound in blue cloth, with silver lettering, and contains maps of all States and Territories, including Canada, etc. In addition to the American Bank Reporter (issued in March and September, with bi-monthly supplements), a desk edition which is very convenient is published in June and December.

Manual of Statistics.

The Manual of Statistics for 1913 has been issued. This standard publication is complete and up to date, fully covering in its 1100 pages the numerous changes in the organization and capital of various railroads during the past year, and also presenting data concerning the many new industrial companies becoming important factors in the same period. This is the thirty-fifth annual number of the Manual, which adequately presents statistics covering the organization, capitalization, finances, etc., of all the leading railroad and industrial corporations in this country and in Canada, with particulars as to their new stock and bond issues. There is likewise included information about Government securities, mining shares and grain and cotton statistics. It is equipped with thumb index. The Manual of Statistics Company, 20 Vesey street, New York city, is the publisher.

An Investing Corporation.

In connection with an offering of its preferred stock it is stated that the Securities Corporation General, organized under the laws of Virginia, is an investing corporation, its capital at present being invested in the securities of 35 companies (mainly public utilities) in various parts of the country. It is further stated that it was not organized to control any particular properties; that it does control two, but only incidentally. Its intention is to obtain well-secured investments bought at an attractive basis in block. Offices are at 1338 Chestnut street, Philadelphia. Percy M. Chandler is president, and J. K. Trimble, secretary-treasurer.

Bank Reports.

The First National Bank of Baltimore, Md., reports at close of business June 4, 1913, loans and discounts, \$4,523,474; capital stock paid in, \$1,000,000; surplus

fund, \$350,000; undivided profits, less expenses and taxes paid, \$103,353; deposits, \$6,332,639; total resources, \$8,622,808. H. B. Wilcox is president; Blanchard Randall, vice-president; Wm. S. Hammond, cashier; Samuel W. Tschudi and R. E. Bolling, assistant cashiers.

Investment Company Chartered.

The charter of the Southern Investment Co. of Delaware is reported at Dover; capital \$100,000. Incorporators are A. H. Burroughs, H. Lewis Brown and W. C. Parker, all at 200 Fifth avenue, New York city.

FINANCIAL CORPORATIONS.

Ala., Leighton.—A new State bank is reported being organized with \$25,000 capital by local parties.

Ark., Berryville.—The First National Bank of Berryville is chartered; capital \$50,000; W. P. George, president; B. O. George, cashier. This is a conversion of the Carroll County Bank of Berryville.

Ark., Cave Springs.—The Bank of Cave Springs has filed articles of incorporation; capital \$10,000; incorporators, J. G. McAndrews, J. W. Hurd and W. E. Talley.

Ark., Green Forest.—The First National Bank of Green Forest chartered; capital \$25,000. Organizers: Joe Ervin, president, Green Forest; F. O. Butt, vice-president and manager, Eureka Springs, and C. C. O'Neal of Green Forest. Business is to begin July 15.

Ga., Helena.—The Bank of Helena is reported to have made application for charter; capital \$25,000. Incorporators: John E. Mitchell of St. Louis, Mo.; B. F. Young of Nacoochee, Ga., and F. G. Jones of Cleveland, Ga.

Ky., Corbin.—The plan to organize a new bank at Corbin has been abandoned.

La., Gibsland.—A new bank is reported being organized. Hon. J. Paul Jones will probably be cashier.

Miss., Sturgis.—The Security Bank is chartered; capital \$30,000; organizers, C. A. Tolbert, C. R. Dadds and J. C. Harrell. Business is to begin soon.

Mo., Hannibal.—The Hannibal Loan & Investment Co. has filed articles of incorporation; capital \$50,000; incorporators, George W. Dulany, J. T. Holmes, James P. Hinton, J. P. Richards, F. G. Richards, W. B. Pettibone, George A. Mahan, Dr. J. N. Baskett, R. B. Goddson and D. D. Mahan.

Mo., Joplin.—The Missouri National Fire Insurance Co. has made application to organize; capital \$1,000,000; directors, C. H. Mitchell, Maysville, Ky.; A. Braithwaite and B. F. Tatem, Joplin, Mo.; Ben B. Poyntz, Maysville, Ky.; Stanley Watson, Kansas City, Mo.; Clarence Matthews, Maysville, Ky.; J. H. Pollock, James E. Nugent, L. Newton Wylder and Donald W. Johnson, Kansas City, Mo.

N. C., Greenville.—The Farmers' Bank of Greenville is chartered; capital \$50,000; organizers, M. G. Bryan, B. T. Cox, J. M. Dix and others.

Okla., Ardmore.—The State National Bank, successor to Ardmore State Bank, is chartered; capital \$100,000. Directors: C. T. Barringer, president; Byron Drew, vice-president; Harold Wallace, cashier; F. C. Carr, assistant cashier; W. L. Green, W. M. Gwyn and G. A. Ramsey. Business began May 19.

Okla., Francis.—The Francis National Bank, capital \$25,000, which has made application for charter, expects to begin business about August 1. A. G. Adams and others are interested.

S. C., Sumter.—The Liberty Holding Co. of Sumter has been granted a commission; capital \$100,000; petitioners, Perry Moses, Jr., and W. G. Moses.

Tenn., Kenton.—Chartered: First National Bank of Kenton; capital \$25,000; Walter Howell, president; H. W. Scott, cashier. This succeeds the Bank of Kenton.

Tex., Elysian Fields.—The Guaranty State Bank, chartered with \$10,000 capital, will begin business about August 15. E. G. Fry, president; J. M. Furrh, vice-president, and E. M. Grimes, cashier.

Tex., Galveston.—The South Texas State Bank is chartered with \$100,000 to take over the Rosenberg Bank, a private concern. Directors: J. P. Alvey, president; E. R. Cheese-

[For Additional Financial News, See Pages 78 and 79.]

Merchants-Mechanics National Bank

South and Water Sts., BALTIMORE, MD.
DOUGLAS H. THOMAS, President.
JNO. B. RAMSAY, V.-P. and Chm. Bd. of Dir.
WM. INGLE, Vice-President.
JOHN B. H. DUNN, Cashier.
 Capital \$2,000,000 Deposits \$21,670,000
 Surplus and Profits \$2,175,000

Accounts of Banks, Bankers, Corporations and Individuals solicited.

We invite correspondence.

The First National Bank

OF KEY WEST, FLA.
 United States Depository and Disbursing Agent
 Capital \$100,000
 Surplus and Undivided Profits 40,000
 A general banking business transacted.
 Special attention given to collections.

INVESTMENT SECURITIES

Southern Stocks and Bonds
 Municipal and Corporation
 Cotton Mill Stock a Specialty
WM. S. GLENN, Broker, SPARTANBURG, S. C.

JOHN NUVEEN & CO.

First National Bank Building
 CHICAGO
 We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.
 Write us if you have bonds for sale.

Delaware Trust Company

Wilmington, Delaware
 INCORPORATING under broad, liberal, safe and stable Delaware laws. A fully equipped department for proper organization and registration of corporations.
 BANKING AND TRUST department gives special attention to out of town customers' accounts.
 TITLE DEPARTMENT examines and guarantees title to realty throughout Delaware.
 REALTY DEPARTMENT has sites for manufacturing industries. Modern Methods of management of property.
J. ERNEST SMITH, President and Gen. Counsel.
WM. G. TAYLOR, Vice-Pres. and Treasurer.
HARRY W. DAVIS, Vice-Pres. and Secretary.
W. W. PUSEY, 2d Title and Real Estate Officer.

WE BUY
 CITY, COUNTY, SCHOOL
 AND DRAINAGE
BONDS
 From Municipalities
 and Contractors
The Tillotson & Wolcott Co.
 CLEVELAND, OHIO

H. B. Wilcox, Pres. Blanchard Randall, V.-Pres.
 Wm. S. Hammond, Cashier
 Saml. W. Tchudi, A. Cash. R. E. Bolling, A. Cash.

The First National Bank

17 South St., Baltimore, Md.
 Capital - - - \$1,000,000
 Surplus and Net Profits - 400,000
 Deposits - - - 6,500,000

Especially well equipped to handle the business of Southern Banks, Corporations, and Individuals and Manufacturers. We cordially invite correspondence and interviews.

The National Exchange Bank

OF BALTIMORE, MD.
 Hopkins Place, German and Liberty Streets
 Capital, \$1,000,000
 July 15th, 1908, Surplus and Profits, \$671,631.60
 OFFICERS
WALDO NEWCOMER, President.
SUMMERFIELD BALDWIN, Vice-Pres.
R. VINTON LANSDALE, Cashier.
C. G. MORGAN, Asst. Cashier.
 Accounts of Mercantile Firms, Corporations, Banks and Individuals Invited.

SURETY BONDS**Fidelity & Deposit Co.**

OF MARYLAND
 Home Office, - - BALTIMORE, MD.
 Total Assets Dec. 31, 1911,
 \$8,133,000.57

Pioneer Surety Co. of the South.
 Becomes Surety on bonds of every description.

AGENTS IN ALL PRINCIPAL CITIES
Harry Nisodemus, Sec'y and Treas.
Edwin Warfield, President

Southern Steam Railroad Securities

DEALT IN
F. J. LISMAN & CO.
 Specialists in Steam R. R. Securities
 Members New York Stock Exchange
 30 Broad Street NEW YORK
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THAT PROTECT AND PAY
 BOOKS, ADVICE AND SEARCHES FREE
 Send sketch or model for search. Highest References.
 Best Results. Promptness Assured.

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FOR SALE Timber, Coal, Iron, Ranch, Phosphate, Other Properties, Southern States, West Indies, Mexico
SOUTHERN STATES DEVELOPMENT CO.
 (Brokers) **Geo. B. Edwards, Pres.**
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 Negotiations, Investigations, Settlements, Purchases of Property, Information.

We Finance

Electric Light, Power and Street Railway Enterprises
 With Records of Established Earnings

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Bankers and Investment Dealers
 Proven Public Utility Securities
 Correspondence Solicited

Electric Bond and Share Company

(Paid-up Capital and Surplus, \$12,000,000)
 71 Broadway New York

**Securities Corporation General**

1338 Chestnut Street, Philadelphia
 111 Broadway, New York

Authorized Capital \$10,000,000
 Issued \$4,853,125

Deals and invests in public service securities.
 Participates in security underwritings.
 Finances public service enterprises.

P. M. CHANDLER, President
W. H. SHARP, Vice-President
G. W. ROBERTSON, Vice-President
J. K. TRIMBLE, Sec'y & Treas.

DIRECTORS:

CALDWELL HARDY, Norfolk, Va.
ALEXANDER J. HEMPHILL, New York
HOWARD A. LOEB, Philadelphia
S. Z. MITCHELL, New York
FERGUS REID, Norfolk, Va.
GEO. W. ROBERTSON, Shamokin, Pa.

F. W. ROEBLING, Jr., Trenton, N. J.
W. H. SHARP, Philadelphia
EDW. D. TOLAND, Philadelphia
J. G. WHITE, New York
P. M. CHANDLER, Philadelphia
F. T. CHANDLER, Philadelphia

WE BUY City, County, School and Drainage BONDS

FROM MUNICIPALITIES OR CONTRACTORS

We are in position to pay HIGHEST PRICES. Write or wire us your offerings.

THE NEW FIRST NATIONAL BANK, Assets, \$6,000,000 Columbus, Ohio

**Palmetto National Bank**

COLUMBIA, S. C.

Capital \$250,000.00
 Deposits \$2,700,000.00
 Surplus and Profits \$150,000.00

WILIE JONES, President
JOHN JACOB SEIBELS, Vice-President
THOMAS TAYLOR, 2nd Vice-President
J. P. MATTHEWS, Cashier
WM. M. GIBBS, Jr., Asst. Cashier
WESTON & AYCOCK, Solicitors

Direct daily connection with every banking point in South Carolina.

28 YEARS' ACTIVE SERVICE

STATE, CITY AND CORPORATION FINANCING
 Entire Issues Bought and Sold

Mercantile Trust & Deposit Company

OF BALTIMORE

Capital - - - \$1,500,000
 Surplus - - - \$3,000,000

Thoroughly organized to exercise all Banking and Trust Company functions.
 Correspondent for Banks and Trust Companies.

A. H. S. POST - - President

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 CONSIGNMENTS SOLICITED

HOWARD & COMPANY

PORT OF SAVANNAH

FORWARDING AGENTS**COTTON YARNS**

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NEW YORK 87-89 Leonard Street
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To Manufacturers and Capitalists

Contemplating the Establishment of Industrial Enterprises

Attention is called to the exceptionally favorable location of

NEWPORT NEWS, VA.

on Hampton Roads, fifteen miles from the sea. Deep water, railway and sea transportation facilities unrivaled. Climate salubrious. Apply to

W. B. LIVEZEY, President

OLD DOMINION LAND COMPANY
 NEWPORT NEWS, VA.

borough, vice-president; C. G. Sweet, cashier; J. Carroll Alvey, assistant cashier; I. A. Stein, J. J. Davis and Fred M. Lege, Jr.

Tex., Hebronville.—The Hebronville State Bank is chartered with \$10,000 capital by H. C. Yaeger, A. C. Jones and Oscar Thompson.

Tex., Malakoff.—The First National Bank of Malakoff is chartered; capital \$25,000; Wiley Thornton, president, and J. F. Neff, cashier.

Tex., Penelope.—The Guaranty State Bank is chartered; capital \$20,000; C. W. Holloway, president; C. Alexander, vice-president; L. E. Holloway, cashier; directors, C. W. Holloway, C. Alexander, J. H. Mabry, W. R. Denton, C. R. Westmoreland, Fred Pribyla and L. E. Holloway. Business is to begin about August 15.

Tex., Riverside.—The Riverside State Bank, capital \$10,000, is incorporated by D. F. Barnett, J. H. Broyles and Roger Robbins.

Tex., Schertz.—The Schertz State Bank, capital \$10,000, is incorporated by J. B. Holt, E. Zander and S. A. Coffman.

Va., Brownsburg.—The Bank of Brownsburg is soon to begin business; capital \$12,000. Officers: Rufus L. Patterson, president; Thomas S. Rees, vice-president; Henry T. Rees, cashier, and W. T. Hutcheson, assistant cashier and bookkeeper; directors, Rufus L. Patterson, Thomas S. Rees, W. T. Hutcheson, H. W. McLaughlin, Wm. G. Reid, W. P. Whipple, S. M. Huffman, J. R. Brown, D. J. Whipple, B. F. McClung, Jr., J. W. Culton, W. A. East and Paul M. Penick.

Va., Nickelsville.—The Farmers' Exchange Bank incorporated; capital \$15,000. J. P. Sutton, president; C. W. Bond, vice-president; J. A. Bond, secretary and cashier.

NEW SECURITIES.

Ala., Birmingham.—The Chamber of Commerce has requested the City Council to order an election to vote on \$150,000 of auditorium bonds.

Ala., Mobile.—Bids will be opened on June 26 for \$150,000 of 5 per cent. 20-year Mobile county road bonds. Address Geo. E. Stone, Treasurer. Further particulars will be found in the advertising columns.

Ala., Mobile.—July 9 an election is to be held to vote on \$150,000 of 5 per cent. 30-year school bonds. Lazarus Schwartz is Mayor.

Ark., Van Buren.—Bids will be received until 11 A. M. June 12 for \$800 of 6 per cent. 10-year bonds. Address John J. Izard, chairman Board of Commissioners of Storm Sewer District No. 1.

Fla., Orlando.—An election is to be held to vote on \$100,000 of street bonds.

Fla., Panama City.—Bids will be received until noon June 30 for \$25,000 of 6 per cent. bonds; dated July 1, 1913; maturity July 1, 1913; denomination \$1000. C. M. Chandler is Town Clerk. Further particulars will be found in the advertising columns.

Fla., Pass-a-Grille.—The Central National Bank has purchased, at par with accrued interest and \$25 premium, \$5000 of water-works and fire protection bonds.

Fla., Sanford.—City proposes to issue bonds to take up outstanding indebtedness and improve streets.

Fla., Seminole Heights.—An election is to be held in June to vote on \$15,000 of school bonds.

Fla., Starke.—Reported voted: \$25,000 of road-improvement bonds of Precinct No. 7, Bradford county.

Fla., St. Petersburg.—July 1 an election is to be held to vote on \$65,000 of school district bonds.

Fla., Tallahassee.—The Senate has declared legal bonds voted by special tax school districts 1, 5 and 6 in Dade county.

Fla., Tampa.—July 29 an election is to be held in Hillsborough county to vote on \$1,000,000 of road bonds.

Fla., Tallahassee.—The State Senate has

passed the bill providing for the issuing of \$6,000,000 of bonds for completion of the drainage of the Everglades.

Ga., Atlanta.—The Finance Committee will, it is stated, recommend that the City Council take steps to issue bonds for public improvements.

Ga., Augusta.—Steps are being taken to place on the market \$250,000 of levee bonds. Address Finance Commission.

Ga., Columbus.—The election called for July 5 to vote on hospital bonds will be postponed. M. M. Moore is City Clerk and L. H. Chappell Mayor.

Ga., Jackson.—July 8 an election is to be held to vote on \$23,000 of 5 per cent. sewerage bonds; denomination \$1000. W. E. Watkins is Mayor.

Ga., Rentz.—June 16 an election is to be held to vote on \$8000 of 5½ per cent. school-house bonds; denomination \$500; maturity January 1, 1934. Address B. P. Wynn. W. O. Armstrong is Mayor.

Ga., Pooler.—Bids will be received until 4 P. M. July 5 for \$6000 of 6 per cent. 3-8-year water bonds; denomination \$500. Carl A. Ryan is Mayor.

Ga., Summerville.—Bids will be received until 10 A. M. July 10 for \$18,000 of 5 per cent. school district bonds; denominations, \$400, \$500, \$600, \$700 and \$800; dated July 15, 1913; maturity, first bond, \$400, January 15, 1914, and each bond annually thereafter. Address B. H. Edmondson, secretary and treasurer Board of Trustees. Further particulars will be found in the advertising columns.

Ga., Thomaston.—Voted: \$15,000 of 5 per cent. water and sewer bonds; denomination \$1000; maturity, \$1000 January 1, 1928, to 1942; also \$5000 of R. E. Lee Institute Extension bonds.

Ky., Louisville.—The question of issuing \$1,000,000 of bonds for betterment of public-school system is reported being agitated.

La., Gretna.—Districts Nos. 1 and 2, Jefferson parish, have voted \$200,000 of 5 per cent. 40-year road bonds.

La., Gulfport.—Voted May 31: \$150,000 of railroad-aid bonds. W. H. Bonsley is Mayor.

La., Pointe-a-la-Hache.—The Board of Commissioners of Venice Drainage District, Plaquemines parish, has authorized the issuing of \$60,000 of 5 per cent. 40-year bonds.

La., Shreveport.—Bids will be opened on June 24 for \$101,500 of 4½ per cent. 40-year public improvement bonds voted March 4, 1913; dated March 1, 1913; denomination \$1000. Address L. H. Baker, secretary-treasurer.

Md., Baltimore.—Of the \$5,500,000 of 4 per cent. city stock now being offered, \$1,029,100 has been sold at prices ranging from 90 to 95. The balance of the stock is now being sold over the counter in lots varying from \$100 to \$100,000.

Miss., Collins.—Beat No. 3 has floated \$50,000 and Beat No. 2 \$35,000 of bonds for road improvements in Covington county. O. W. Conner is chairman of commissioners.

Miss., Columbia.—Voted: \$15,000 of school bonds.

Miss., Fayette.—Defeated: \$50,000 of bonds of Third district, Jefferson county.

Miss., Forest.—The Farmers and Merchants' Bank of Forest, Miss., has purchased at \$175 premium \$25,000 of 6 per cent. road bonds of Beat 1, Scott county.

Miss., Georgetown.—City will soon offer water-works bonds.

Miss., Grenada.—Bids will be received until 4 P. M. July 8 for \$25,000 of 5 per cent. 20-year bonds. L. B. James is City Recorder; denomination \$500; dated July 1, 1913; maturity July 1, 1933. L. B. James is City Recorder. Further particulars will be found in the advertising columns.

Miss., Hickory.—An election is to be held to vote on \$10,000 of school-building bonds, interest not to exceed 6 per cent. Address Mayor and Board of Aldermen, M. G. Scarborough, clerk.

Miss., Jackson.—An election is to be held

in Rankin county to vote on \$75,000 of 6 per cent. road bonds.

Miss., Jackson.—Voted: \$250,000 of bonds for filtering plant, street improvements and to pay off old debts.

Miss., Louisville.—Bids will be received until 8 P. M. July 1 by the Board of Mayor and Aldermen for \$32,000 of 20-year water and sewerage bonds. W. J. Newsom is Mayor. Further particulars will be found in the advertising columns.

Miss., Magnolia.—Bids will be received until 2 P. M. July 7 by the Board of Supervisors of Pike County, Charles E. Brumfield, clerk, for \$200,000 of 5½ per cent. 25-year road bonds; dated August 1, 1913. Further particulars will be found in the advertising columns.

Miss., Oxford.—E. W. Jordan is receiving bids for \$130,000 of 6 per cent. road bonds of Supervisors District No. 1, Lafayette county.

Miss., Port Gibson.—Reported that all bids received June 2 for the \$10,000 of 5 per cent. 20-year Claiborne county bridge bonds were rejected.

Miss., Quitman.—J. R. Sutherland & Co., Kansas City, has purchased \$50,000 of courthouse and jail bonds. Hon. A. Johnston is president Board of Supervisors.

Miss., Tupelo.—The People's Bank & Trust Co. of Tupelo has purchased \$25,000 of 5 per cent. 20-year school district bonds.

Miss., Tupelo.—The People's Bank & Trust Co. of Tupelo has purchased \$40,000 of Second District road bonds.

Mo., Elseberry.—The Little & Hayes Investment Co. and the W. R. Compton Bond & Mortgage Co. purchased on June 5 at par \$340,000 of 6 per cent. 20-year drainage bonds of Elseberry Drainage District; denominations \$500 and \$1000. Address Board of Supervisors.

Mo., Glendale.—June 14, it is stated, North Glendale School District will vote on \$20,000 of school-site and building bonds.

Mo., Owensville.—Voted: \$12,000 of water-works system bonds.

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CHICAGO, ILLINOIS

improving water, sewerage and electric-lighting system. W. D. Tucker is Mayor.

N. C., Lillington.—Voted: \$15,000 of graded school building bonds. A. M. McLean is City Attorney.

N. C., Matthews.—Bids were received until June 9 for \$12,000 of 6 per cent. Matthews School District building and improvement bonds. W. L. Hood is secretary.

N. C., Mocksville.—Bids will be received until noon July 7 for \$105,000 of 5 per cent. 10-30-year Davie county road bonds; dated July 1, 1913; denominations either \$500 or \$1000. Address C. G. Bailey, chairman Board of Commissioners, Davie county, at Advance, N. C.

N. C., Mooresville.—July 8 an election is to be held to vote on \$30,000 of sewerage, \$20,000 of water and \$15,000 of street bonds.

N. C., Morehead City.—Bids will be received until 8 o'clock July 8 for \$9000 of 6 per cent. 25-year graded school bonds. Address W. E. Headen, chairman Board of Graded School Trustees, E. H. Gorham is attorney. Further particulars will be found in the advertising columns.

N. C., Oxford.—June 14 city will vote on \$10,000 of street and sidewalks bonds. T. G. Stem is Mayor. Further particulars will be found in the advertising columns.

N. C., Raleigh.—Baker, Watts & Co., Townsend Scott & Sons, Mercantile Trust & Deposit Co. of Baltimore, Md., and Meyer, Deppe & Walter of Cincinnati have purchased \$350,000 of 5 per cent. water bonds. A previous item stated the bonds had been purchased by Meyer, Deppe & Walter of Cincinnati.

N. C., Raeford.—Bids are now being received for \$35,000 of 5 per cent. 30-year Raeford graded and high-school bonds voted in May. J. W. McLaughlin is chairman board of Trustees and J. A. McGoogan Superintendent Public Instruction.

N. C., Robersonville.—Bids will be received until 2 P. M. June 20 by A. E. Smith, chairman Board of Trustees of Roberson township, Martin county, for \$5000 of 6 per cent. 20-year road bonds. Further particulars will be found in the advertising columns.

N. C., Rocky Mount.—City has voted \$65,000 of gas plant, \$35,000 of school building and \$135,000 of street, sewerage, water and light extension bonds. L. F. Tilley is Mayor, and not W. L. Parrott as previously reported.

N. C., Shelby.—The First National Bank has purchased at par \$25,000 of No. 7 township 6 per cent. road bonds.

N. C., Snow Hill.—An election is to be held in Greene county to vote on \$20,000 of road-improvement bonds.

N. C., Southport.—July 8 an election is to be held to vote on \$40,000 of bridge bonds. A. M. Chinnis is chairman Board Commissioners and Geo. H. Gray, clerk.

N. C., Statesville.—Commissioners of Iredell county have ordered the following townships to issue bonds in aid of Statesville Air Line Railroad Co.: Turnersburg township, \$35,000; Eagle Mills, \$30,000; Union Grove, \$10,000. Bonds will be dated July 1, 1913, run 30 years and bear 6 per cent. interest; denomination \$1000.

N. C., Sylva.—Road bonds of Jackson county have been sold. Address A. J. Dills at Sylva.

N. C., Tarboro.—July 15 an election is to be held in Edgecombe county to vote on \$200,000 of road and bridge bonds.

N. C., Washington.—A Columbus (O.) bonding company has purchased \$500,000 of bonds of the Southern Land & Reclamation Co., which proposes to drain Mattamuskeet Lake.

N. C., Waynesville.—Bids will be received until June 25 for \$6000 of 5 per cent. 30-year school bonds. J. H. Howell is clerk. Further particulars will be found in the advertising columns.

N. C., Wilson.—The election to vote on \$30,000 of railroad aid bonds will be held July 8.

Okl., Madill.—Voted: \$7000 of water-improvement bonds.

S. C., Camden.—Bids will be received until noon June 27 for \$90,000 of water-works and \$35,000 of electric-light 5 per cent. 20-40-year bonds. Address Secretary, Board of Commissioners of Public Works. Further particulars will be found in the advertising columns.

S. C., Greer.—June 17 an election is to be held to vote on \$6500 of bonds of Greer school district. Address John D. Wood, M. D. Cunningham and J. D. Lanford, board of trustees for Greer school district.

S. C., Hampton.—Hampton county pro-

poses to issue about \$300,000 of drainage bonds.

S. C., Jonesville.—Defeated: \$30,000 of 6 per cent. electric-light and water-works bonds. J. T. Scott is Mayor.

S. C., Lancaster.—An election is to be held June 25 to vote on \$45,000 of sewerage, \$12,000 of water-works system and \$13,000 of street and road improvement bonds.

S. C., Lamar.—R. C. Huggins, clerk, is receiving bids for \$7000 of 6 per cent. bonds. Further particulars will be found in the advertising columns.

S. C., Spartanburg.—July 8 an election is to be held to vote on \$100,000 of street-improvement bonds.

S. C., Turberville.—Cooke, Holtze & Co., Chicago, have purchased an issue of school-building bonds.

Tenn., Chattanooga.—Bids will be received until 10 A. M. June 18 for \$5116.60 of 6 per cent. 1-4-year bonds of paying district No. 49. T. C. Thompson is Mayor.

Tenn., Centerville.—Hickman county will vote June 14 on \$300,000 of road bonds.

Tenn., Greeneville.—Voted June 3: \$15,000 of water plant and \$40,000 of sewerage bonds. Address W. H. Doughty, secretary Water Commission.

Tenn., Memphis.—Voted: \$1,500,000 of bonds for construction of levee and pumping system in North Memphis.

Tenn., Nashville.—All bids received for the \$11,458,000 of 4 per cent. State of Tennessee refunding bonds were rejected and new bids will be received until June 16. Address Funding Board of Tennessee.

Tenn., Nashville.—The \$300,000 of emergency repair and \$100,000 of electric-light extension 5 per cent. 30-year bonds were purchased at \$101 premium by Breed, Elliott & Harrison, and Field, Longstreth & Co., Cincinnati. Wm. L. Murray is City Recorder.

Tenn., Nashville.—Defeated: \$2,500,000 of reservoir bonds.

Tex., Austin.—The Attorney-General has approved the following securities: \$100,000 of 5½ per cent. irrigation improvement bonds of Union Irrigation District of Cameron and Hidalgo counties; \$800 of 5 per cent. 20-year bonds of Brown county common school district No. 3; \$700 of 5 per cent. 20-year bonds of Brown county common school district No. 52.

Tex., Beaumont.—Defeated: \$500,000 of Jefferson county road bonds. J. R. Jefferson is County Clerk. A previous item stated the bonds carried.

Tex., Belton.—July 2 an election is to be held to vote on \$50,000 of street improvement and \$24,000 of water-works bonds.

Tex., Bishop.—Bishop Independent school district has voted \$75,000 of high school bonds.

Tex., Clarksville.—The Commissioners' Court has ordered an election to vote on \$200,000 of bonds for good roads in Clarksville precinct.

Tex., Conroe.—An election will probably be held in July to vote on Montgomery county bonds.

Tex., Corpus Christi.—July 19 an election is to be held to vote on \$750,000 of Nueces county highway bonds, \$500,000 being for road improvement and \$250,000 for courthouse and jail.

Tex., Dallas.—It is proposed to hold an election July 19 to vote on \$75,000 or \$100,000 of Dallas county bridge bonds.

Tex., Decatur.—The \$27,000 of 5 per cent. school bonds, voted May 24, are 40-year 5 per cent.; denomination \$500.

Tex., Georgetown.—June 14 Precinct No. 3, Williamson county, will vote on \$50,000 of road-improvement bonds.

Tex., Hall's.—Voted: \$30,000 of grading and \$5000 of sidewalk bonds.

Tex., Madisonville.—City has sold \$16,000 of 5 per cent. 20-40-year water-works bonds recently voted.

Tex., Matagorda.—An election is to be held in Matagorda Independent school district to vote on \$9000 of school bonds.

Tex., Mercedes.—June 28 an election is to be held to vote on \$10,000 of 5 per cent. 40-year Independent School District bonds. E. E. Evans is president Board of Trustees of said district and E. R. Witmer secretary.

Tex., Orange.—Orange county and Orange Navigation District has purchased at par \$23,400 of 5 per cent. 40-year Orange county drainage bonds; dated March 16, 1913. Address William Manuel, Secretary, Lemonville, Tex.

Tex., Paducah.—The election to vote on \$50,000 of 5 per cent. 40-year bonds of Commissioners' Precinct No. 1, Cottle county, will be held June 28; denomination \$1000.

Tex., Texarkana.—June 30 an election is to be held to vote on \$60,000 of sewer and \$225,000 of 5 per cent. 40-year street and bridge bonds.

Tex., Tyler.—A petition is reported being circulated in Smith county asking that an election be held July 8 to vote on \$300,000 of road-construction bonds.

Tex., Tyler.—Bids will be opened on July 10 for \$75,000 of 5 per cent. 40-year bonds of Road District No. 1, Smith county; denomination \$1000. Bonds were voted May 15, 1913. Jesse F. Odum is County Judge.

Tex., Weatherford.—June 25 an election is to be held to vote on \$4000 of 5 per cent. sewer improvement bonds. Hugh McGratton is Mayor.

Va., Appalachia.—Bids will be received until 2 P. M. June 17 by E. A. Collins, Town Recorder, for \$21,000 of 5 per cent. 30-year sewer bonds.

Va., Culpeper.—A Somerville agent has been awarded at 101.625 the \$40,000 of 5 per cent. bonds of Catapa Magisterial District, Culpeper county.

W. Va., Cowan.—C. D. Howard, chairman, and Dr. D. P. Kessler and E. R. Rogers, have been appointed a committee to sell \$22,000 of school bonds of Glade district, Webster county.

Va., Galax.—It is proposed to hold an election to vote on water and sewerage bonds.

W. Va., Kingwood.—June 30 Kingwood district, Preston county, will vote on \$35,000 of bonds. Address Board of Education.

FINANCIAL NOTES.

The annual meeting of the South Carolina Building and Loan League will be held at Abbeville June 19 and 20.

The Citizens' Bank, Lafayette, Tenn., has taken possession of its new building on the corner of Square and Maple streets.

The Columbia Mortgage & Trust Co., Memphis, Tenn., has increased its capital from \$25,000 to \$100,000.

The Bank of Fisher, at Fisher, Ark., is reported reorganized and capital increased from \$10,000 to \$25,000. C. W. Pittinger is president.

The annual convention of the North Carolina Building and Loan Association will meet in the city of Burlington June 11 and 12.

JASMINES AT ALVIN.

Interesting Development in Commercial Floriculture.

[Special Cor. Manufacturers Record.]

Houston, Tex., May 15.

Cape Jasmynes by the hundreds of thousands, Cape Jasmynes in carload lots, is the altogether surprising magnitude of a commercial development that has been built up within recent years at the little village of Alvin, on the Santa Fe Railroad, some 25 miles south of Houston. To the towns and cities of the North, and even to the other side of the world, the dainty Jasmine buds are carried, fragrantly bearing a message of springtime and giving testimony to the riot of perfume the fields and the woods of the South have known from long before the time when the most daring flowerlet of the North has ventured to peep out on a still chilled world.

The pure white of the petals, the livid green of the leaves and the pervading fragrance it exhales make of the Cape Jasmine one of the most effective of all the springtime flowers for decorative effects, and not only in the South, where it almost universally abounds, but among all lovers of flowers in other sections, it is held in well-nigh adoring esteem. From all the knowledge I can gain, however, only at Alvin has the cultivation and shipment of Cape Jasmynes been established as a commercial proposition on a really big scale. Here it is the chief business of an entire community for several weeks in the spring, coming at a time when the big rush of strawberry shipments is over, and when it is realized that the price obtained is \$1 a hundred buds, and that at least one carload a day will go out for 15 to 20 days in May, some

idea of the extent of the industry may be gained.

It was a Northern man who discovered the opportunity and established the business. Some years ago C. W. Benson, who had been badly frozen in the performance of a heroic act of valor for a snowbound train in the Dakotas, came South to recuperate. His company pensioned him and assigned him to nominal duties in the South. Seeing a wealth of Cape Jasmynes in the vicinity of Alvin, and knowing how much the early buds are in demand for all sorts of decorative purposes in the North, he got in touch with the owners and with Northern florists, and immediately worked up a demand for all he could supply. He gave careful attention to the selection and packing of the buds, using mainly moist newspaper as a packing and governing the selection by the distance the buds would have to go. Well opened buds could be shipped to nearby places, while those for long distances must be more immature. Raising none himself, he has stimulated their growth by almost everybody else around Alvin. The attractiveness of the proposition is indicated in the fact that on a five-acre tract of Cape Jasmynes as much as \$2500 a year may be realized if conditions are good. Yet so great has the demand become that every year orders amounting to \$2000 or \$3000 are returned unfulfilled. They go on the tables at private dinners and public banquets; are used at school commencements and at weddings, and on memorial day, at the North, the supply is practically exhausted. This constitutes the one big order of the year. Shipments begin about May 15, and May 31 usually closes the shipping season.

An instance of how far they may go and of the care with which they are packed is related in the case of a shipment to W. K. Vanderbilt, who was leaving New York for a Mediterranean cruise on his yacht. From Gibraltar he wrote that the last buds had been put on the table that morning, and that they were as beautiful and fresh as the first they had unwrapped.

Much fame for the Texas Cape Jasmine has been earned through the graciousness of Col. Geo. M. Bailey, editorial writer on the Houston Post, in sending out every year 100 buds apiece to a number of his friends among the Northern and Eastern newspaper editors. He also includes the President at Washington, and this year the latest ex-President has also been remembered. Most appreciative recognition of these welcome gifts is invariably received, with a tribute to the section that can produce flowers so lovely as these.

With a beautiful flower of some description growing in the open every month of the year down South, it is inevitable that there will be a great awakening to the possibilities of developing large enterprises for supplying the North with cultivated flowers from the South. Here and there occasional instances, as in the case of the Jasmine, may be found. E. H. R. Green, the railroad president, and son of "Hettie," has a big rose garden at Dallas which pays, and there are a few others there and elsewhere. And yet it hasn't been so very long since a visitor at New Orleans, desiring to buy some roses at the hotel flower stand, was informed that the Chicago train had been delayed and none could be had until the daily supply, always secured in Chicago, had arrived. Times have changed in New Orleans since that time, however, for last year a New Orleans florist took first prize for roses over all competitors at a national flower show in Chicago.

ALBERT PHENIX.

Classified Opportunities

MEN WANTED

HAVE just closed contract for several hundred houses to be built at Stone, Ky., and will need carpenters and their helpers, painters and laborers. Address W. A. Liller, Keyser, W. Va.

WANTED—High-grade specialty salesman to sell latest patented sanitary device, with territory rights. One salesman sold 2200 in 60 days. Liberal commission and good territory to right man with experience. None others need apply. Simplex Container Co., Inc., Mobile, Ala., Box 618.

AGENCIES WANTED

WANTED—Sales agency for all lines pertaining to builders' specialties; East Tennessee as territory; can furnish satisfactory references to interested concern; modern warehouse facilities. Address Daniel Briscoe, Jr., 325-327 State St., Knoxville, Tenn.

SITUATIONS WANTED

AN OIL-MILL SUPERINTENDENT of 15 years' experience wishes to change position. Best of references given. Address No. 1264, care Manufacturers Record.

WANTED—Position as civil engineer or superintendent of construction work; railroad sewers and roads a specialty; wide experience in this and other counties. George A. Power, 1003 N. Stricker St., Baltimore, Md.

EXPERIENCED young quarry manager wants connection with larger company; thoroughly practical and confident and can give good references; well acquainted with the crushed stone and lime industry in the South. Address No. 1235, care Manufacturers Record.

POSITION WANTED.—Young man of executive ability, graduate of Southern Textile School, graduate of International Correspondence Schools, eight years' experience in Southern mills and one year in mills of Fall River, wishes position as superintendent or assistant in Southern mill. A-1 references as to ability. Address No. 1291, care Manufacturers Record.

POSITION WANTED by a man with great experience in promoting new enterprises; especially familiar with oil, coal and iron mining and mechanical devices adapted to railroads and mines.

Has the very highest connections oil, railroad and mining interests of the Atlantic States, especially N. Y., N. J., Pa. and Md. Is in close touch with the great financial houses of New York, Philadelphia, Baltimore, Cincinnati and Memphis, Tenn.

Has successfully promoted several enterprises and can command capital for any first-class proposition which can stand investigation. Address No. 1236, care Manufacturers Record.

WANTED—To travel for or represent an American manufacturing firm in the sale of their product, for South and Central America; have been in the tropics for 4 years and can speak Spanish fluently; best references. Address No. 1273, care Manufacturers Record.

EDUCATIONAL

RENSSELAER POLYTECHNIC INSTITUTE, TROY, N. Y.—Courses in Civil, Mechanical and Electrical Engineering and General Science, leading to the degrees of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), and Bachelor of Science (B.S.). Special courses in engineering and science. Splendidly equipped new engineering laboratories. Send for catalogues to Registrar.

CHEMISTS

THOROUGHLY equipped to handle the chemical and bacteriological problems of manufacturers; service and satisfaction. The Holtzendorff Laboratories, Memphis Trust Bldg., Memphis, Tenn.

TYPEWRITERS

\$37.50—ROYAL TYPEWRITER, REBUILT LIKE NEW.—Send for special bargain list of used machines taken in exchange for re-builts. R. J. Nicholson, 41 St. Paul St., Baltimore, Md.

TYPEWRITER SUPPLIES

HIGHEST QUALITY TYPEWRITER SUPPLIES.—Exclusively oil carbon and mineral coloring matter used in manufacture of carbon paper, which enables us to guarantee absolutely clean work and permanent copies. Our ribbons are made of imported silk, giving much additional strength. They are guaranteed non-filling and long wearing. Address A. Sylvester Edmonds, care of American Ribbon & Carbon Co., 209 Shackelford Building, Athens, Ga. Please mention Manufacturers Record in writing.

CAPITAL WANTED

A BUSINESS PROPOSITION.—We are making a successful up-to-the-minute car, which has stood the test of years. Need more capital than can be had locally. Can you furnish it? If interested, write at once. Address No. 1292, care Manufacturers Record.

RATES AND CONDITIONS

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 25 lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 18c. per line; 300 lines 16c. per line; 500 lines or more, 15c. per line.

A GOING CONCERN, owning its plant and doing a manufacturing, general machine shop, foundry and contract business, best location in South Atlantic States, fine prospects, plenty of work not easily affected by outside conditions, wants \$20,000 active working capital; terms to be arranged. Don't write unless genuinely interested and have the money. Address No. 1289, care Manufacturers Record.

BUILDING MATERIAL WANTED

AM IN THE MARKET for large quantities of 3/4"x3 1/4" face No. 3 yellow-pine ceiling, 4" No. 1 common poplar bevel siding, No. 1 common poplar finish, No. 1 common poplar and yellow-pine mouldings; four-foot plastering lath, patent plaster, lime, common brick and fire brick. W. A. Liller, Keyser, W. Va.

BUSINESS OPPORTUNITIES

COW PEA HULLER. CORRESPONDENCE SOLICITED. I want to make connection with good parties in the South to introduce a new, complete, successful cow pea huller. R. P. Scott, care Sinclair-Scott Co., Baltimore, Md.

FOR RENT—Up-to-date factory, corner Harrison and Salem streets; five and a half stories, with large lot adjoining, suitable for storing material of any kind necessary for use in operating a manufacturing plant. This factory has been occupied by the N. & W. Overall Co. several years, and is well adapted to manufacturing purposes. Can be leased for a number of years; possession given at once. Apply to Watkins L. Moorman, 1514 Grace street, Lynchburg, Va., or to any real estate agent in Lynchburg.

LIBERAL INDUCEMENTS to man of reputation and practical knowledge of car-wheel industry to join oldest manufacturer in the South. Rare opportunity. Investigate thoroughly. References exchanged. Box 202, Birmingham, Alabama.

HOTEL PROPOSAL.—The Chamber of Commerce of the town of Clearwater offers a bonus of 10 per cent. of the cost of a first-class modern hotel, not to exceed one hundred thousand dollars cost. Write for further particulars. Evan H. Jones, Secretary, Clearwater, Fla.

FOR SALE—Stock in strong trust company in Virginia; safe, profitable investment. Address Broker, Box 200, Richmond, Va.

DUSTIN, OKLA.—O. O. Rosson wants to hear from manufacturer who will manufacture best rail joint ever invented. Also a new rail per ton. Good opportunity. Joints have been tested by M. O. & G. R. R. Co.

WANTED—Party with fifteen or twenty thousand dollars to join in operating (and ultimately buying) 1000 acres iron-ore lands (brown ore) three miles from and connected with trunk line by short line recently built; money needed for washers and other improvements; can secure large orders as soon as improvements are made at inviting profit; excellent opportunity for right party. 20,000 to 30,000 tons already shipped to furnaces. Closest scrutiny invited and best references. J. M. Chilton, Montgomery, Ala.

GREAT BARGAIN.—It is a rare chance one gets to buy an established business, one that is running daily and making money. I have three manufacturing plants and two farms for sale. All money-makers. Good reasons will be given for selling. Unless you mean business, don't write. Jonathan Havens, Washington, N. C.

GOOD INVESTMENT.—For Sale—Up to one-half interest in the capital stock of a new-year-old corporation with valuable agency contracts in building material business, located in one of the largest cities in Texas. Position with good salary to man of judgment and ability. Must stand rigid investigation. Complete information by return mail. Address No. 1284, care Manufacturers Record.

WANTED—Operator for live proposition. A 5-foot vein good coal, good roof, coal rights of 1000 acres can be secured; good railroad facilities and market near. Address Marshall Smith, Canton, Ill.

FOR SALE—Good paying hardware business in mountains of North Carolina. Big paper mill, new railroad. Good reason for selling. Invoice \$3000. Address E. M. Lide, Canton, N. C.

"CANNING IS EASY WHEN YOU KNOW HOW." The practical way. No costly outfits required. Fifty cents, postpaid. D. King, Columbus, Georgia.

A VALUABLE patented car equipment is now ready for market and needs location and capital for the manufacture of same; will consider proposition from reliable firms to manufacture it on contract or royalty basis. Orders are now coming in and must have better facilities to fill them promptly. For full particulars and information write P. O. Box 89, Cumberland, Md.

R. R. TERMINAL AND FACTORY SITE

FOR SALE.—Large acreage near Atlanta, on Southern Railway, desirable for manufacturing. Also large tract in Birmingham suitable for railroad terminal or manufacturing. Cofield Investment Co., Atlanta, Ga.

FACTORY SITES

FOR SALE.—Corner Tarragona and Romana Sts., 100x108 ft., center Pensacola, Fla.; L. & N. Ry. switch adjoining lot; forced to sell quick. Address owner, G. B. Lythgoe, 15 E. Ala. St., Atlanta, Ga.

FOR SALE.—At Memphis, Tenn., a magnificent factory site, containing 50 acres, on L. & N. R. R. and Raleigh car line, 45 minutes from Court Square; never overflows; will sell as a whole or part; cash or easy terms. Apply to C. D. McRae, at E. E. E. Shoe Co., Memphis, Tenn.

FOR SALE.—The perpetual right to use one of the most desirable manufacturing sites near Richmond; price \$1500. For further particulars regarding this or other desirable manufacturing and warehouse sites in Richmond, Va., and vicinity, address P. A. Green & Co., Room 1101 Virginia Railway & Power Building, Richmond, Virginia.

INDUSTRIES WANTED

MISCELLANEOUS

COAL CREEK, TENN., desires live industries. Free sites to the right kind of enterprises. An abundance of coal, iron ore and timber here. On L. & N. and Southern railroads. Fine climate, unsurpassed drinking water, good pikes and good people. Coal Creek Business Men's League, Coal Creek, Tenn.

KENOVA, W. VA., offers unsurpassed advantages for manufacturing enterprises—free sites, cheap gas, cheap coal, three trunk-line railroads with belt line and switches, interurban electric line to cities in West Virginia, Kentucky and Ohio; two navigable rivers; various kinds of raw materials easily available; best markets economically reached. Kenova-Huntington Land Co., Huntington, W. Va.

ARE you seeking a factory site or a location for a wholesale or distributing house of any kind to reach the Southern and Southwestern markets? If so, Memphis is the place for you, because it is the geographical center and the gateway of the sections you wish to cover; because "Memphis makes the Rates," having 17 railroads and the Mississippi River, and because she has cheap and abundant raw materials, excellent labor conditions, and is unsurpassed as a residence city. Above all, she has 200,000 wide-awake citizens ready to welcome you and co-operate with you. Address John M. Tisher, Sec'y Business Men's Club, Memphis, Tenn.

INDUSTRIAL PLANTS FOR SALE

STEAM LAUNDRY

FOR SALE—Well-equipped steam laundry in one of the best towns in Oklahoma, population 3000. Price, building and ground, \$7000. Box 696, Tahlequah, Okla.

MINERAL AND TIMBER LANDS, WATER POWERS AND MISCELLANEOUS PROPERTIES

J. E. KESTERSON, Huntington, W. Va. Dealing in coal, oil and timber lands in West Virginia and Kentucky.

GOOD FLORIDA LANDS.—Deal direct with owners. If you want good, well-located lands, either small or large tracts, or desirable city property, we have bargains to offer you. D. F. Conoley, 400 Zack St., Tampa, Fla.

FOR SALE—10% acres: fronts most fashionable neighborhood in Shreveport; ideally located for factory in rear, being on railway. Write for prices and terms. D. P. Eubank Realty Co., 607-8 Commercial Nat'l Bank Bldg., Shreveport, La.

FOR SALE—Duck River water-power and 70 acres; new cedar crib dam, 7 feet fall, susceptible 150-horse-power development; pike road 5 miles out; \$5000; easy terms. Will join a practical man with like amount and develop this power. J. B. Ashton, Columbia, Tenn.

500 ACRES at \$15 per acre in Sumter county, Ga., the Banner County in many respects of the State; good land, good timber; a lime and brick deposit on the place; 15 miles from Americus on good roads; can assure the right party a good investment. Write J. A. Davenport, Americus, Ga.

ALL KINDS of real estate for sale and good investments in the Sarasota district. Write Harry L. Hugel, Sarasota, Florida.

FOR SALE—Large list of farm, mineral and timber lands in six Southern States. Now is the time to invest in the South, while prices are reasonable. Our timber tracts are guaranteed to cut so many thousand feet per acre. If interested, send for literature. Hammonds Colonization Realty Co., Room 20 Watts Building, Birmingham, Ala., Major W. A. Hammond.

TWENTY-FIVE THOUSAND ACRES of land in the Shenandoah Valley of Virginia, seven miles long and six miles wide, approximately. A river winds its way through this property for 20 miles, affording about 500 acres of fine pasture land. A trunk-line of a railroad runs through the full length of the tract. Price \$3 per acre on account of forced sale under peculiar conditions, which will be disclosed upon application of responsible parties to T. R. J. Campbell & Co., 214 Corcoran Building, Washington, D. C.

CITY PROPERTIES

IN THE DISTRICT OF COLUMBIA, 100 acres extremely desirable for subdivision, fronting on 18th street and the National Mock Creek Park, at a bargain price. Property immediately adjoining has been subdivided, and in a few months almost \$100,000 worth of lots have been sold at 20 cents to 30 cents a square foot. Full particulars upon request. Robert E. Heater, Colorado Building, Washington, D. C.

LIMESTONE LAND

FOR SALE—As a whole or in part, forty-two acres limestone land lying immediately between two railroads, the suburbs of Hagerstown, Md. Splendid facilities for manufacturing sites. Special inducements offered right parties. Address Bower & Davis, or Board of Trade, Hagerstown, Md.

LIMESTONE QUARRY

FOR SALE OR LEASE.—Limestone quarry, crushing plant and limekilns, located in Tennessee on trunk-line railroad; good demand for commercial stone and ballast; about 60 acres in this tract; also store and tenement-house. Address No. 1214, care Manufacturers Record.

PHOSPHATE LANDS

FOR SALE.—One to fifteen millions tons pebble phosphate in quantities to suit the purchaser; a No. 1 mining proposition. Childers, Burton & Smith, Arcadia, Florida.

COAL AND FARM LANDS

A GOOD THING FOR SOMEONE.—363 acres of good land, well improved, near Jewett, Texas; all fenced; 100 acres in cultivation; two sets of improvements; two railroads touch land; underlaid with good bed of coal. Someone will make good money out of this proposition. Price \$20 per acre; easy terms. Jewett Land Co., Jewett, Texas.

COAL AND TIMBER LANDS

OWNERS OR PURCHASERS of coal and timber properties, if you want to sell or buy first-class coal or timber properties located and priced right, address G. G. Hoster, General Delivery, Huntington, W. Va.

FOR SALE—Fine timber and coal lands, West Virginia, Kentucky, Tennessee and the South; specially selected for our own colonies; nothing better or cheaper; state location and amount wanted. The American Company, Washington, D. C.

FOR SALE—30,000 acres confirmed tax title lands, coal and timber, on Cumberland Mountain from 3 to 6 miles from railroad; fine for farming and stock raising; well watered; cheap. Address Beard & Shelton, Altamont, Tenn.

COAL LAND FOR SALE

INVESTMENT.—I control 500 acres of coal land in Iowa, Monroe Co.; lies 3/4 mile from main line C., B. & Q. Railroad; have mine opened; capacity of 500 gross tons per day; will sell part interest to make further developments. This is a good straight business proposition. Write me for particulars. Harry Smith, 312 N. 5th St., Albia, Iowa.

